City of Santa Barbara
National Pollutant Discharge Elimination System (NPDES)
Storm Water Management Program
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1.0 Introduction

This document serves as the City of Santa Barbara's (City) National Pollutant Discharge Elimination System (NPDES) Phase II Storm Water Management Program (SWMP) prepared in response to State Water Resources Control Board Water Quality Order 2003-0005-DWQ for National Pollutant Discharge Elimination System (NPDES) Phase II General Permit No. CAS000004 (State General Permit). The overall objective of the City's Storm Water Management Program is to comply with the NPDES Phase II regulations and State General Permit, and to meet water quality standards contained in the Statewide Water Quality Control Plan, the California Toxics Rule, and the Regional Water Quality Control Board Basin Plan.

The City SWMP defines strategies and guidelines for the protection of water quality and reduction of pollutant discharges to the Maximum Extent Practicable (MEP) within the City. Through existing environmental programs and services as well as established land development policies, the City of Santa Barbara has a number of programs that meet the intent of the NPDES Phase II regulations and the State General Permit requirements. As a result, the SWMP achieves two objectives. It documents how the City currently meets many NPDES requirements and it identifies key areas where the City will expand its efforts to achieve compliance within the five year permit term. The City's SWMP will be used by the City organization, hired contractors, and the general public. It is an evolving program that will be monitored and revised as necessary in order to address changes in the compliance programs or in the State General Permit requirements.

This program covers the incorporated area of the City, the Waterfront area and the Santa Barbara Airport. The Airport and Waterfront also currently operate under Industrial Storm Water Permits, and have developed and implemented storm water pollution prevention plans (SWPPP) in accordance with the requirements of that permit.

With the submittal of this SWMP, the City of Santa Barbara is filing a Notice of Intent to apply for coverage under the State General Permit (see Appendix A). As required, the NOI and this SWMP contain the following information:

- The area covered by the SWMP
- Best management practices (BMPs) for each of the six minimum control measures
- Measurable goals for each of the BMPs including the years for scheduled actions and the frequency of the action
- Persons who will implement or coordinate the SWMP, as well as each MCM

<u>Santa Barbara Overview</u>

Santa Barbara is located on a part of the California coastline that runs east and west with the Santa Ynez Mountains running parallel to the shoreline only a few miles away.

The residential population of Santa Barbara is approximately 92,325. The City of Santa Barbara is 21 square miles and includes 37,331 dwelling units.[1]

The City has three major creeks; Arroyo Burro, Mission and Sycamore, originating in the foothills north of the City, which flow south to the Pacific Ocean. In addition, there are three minor creeks within the City boundaries; Lighthouse, Honda Valley, and Laguna. The watersheds of each of the three major creeks that are within the City are largely urbanized with residential, commercial and limited industrial development, as well as an extensive road network, and parks and open space. Appendix B includes maps of the local watershed boundaries and the area covered by this SWMP, including the Waterfront and Airport.

Waterfront

The Santa Barbara Harbor is entrusted by the State Tidelands Act to the City of Santa Barbara and operated by the Santa Barbara Waterfront Department (WFD). The Harbor is the only sheltered harbor on the West Coast of Southern California between Port San Luis, 100 miles to the north, and Ventura, 27 miles to the southeast. Commercial and recreational boat use, including boat rentals and charters, are among activities that occur in the Harbor. The Waterfront is a mixture of ocean-dependent, ocean-related, and visitor-serving uses including restaurants, shops, and office space.

Airport

The Santa Barbara Municipal Airport is owned and operated by the City of Santa Barbara. The Airport, consisting of 952 acres, lies approximately 7 miles west of downtown Santa Barbara. Approximately 700 acres are fenced, restricted access areas. These areas include runways, taxiways, and ramps, roughly 400 acres of Goleta Slough Ecological Reserve and 300 acres of unpaved airfield. Public and commercial/industrial areas outside the airfield total over 200 acres.

Development of the City of Santa Barbara Storm Water Management Program

The Storm Water Management Program (SWMP) was prepared and is implemented by a team of City staff from the Parks and Recreation, Public Works, Community Development, Waterfront, Airport and Fire Departments. The organizational chart in Appendix B outlines the roles and responsibilities of other Divisions and Departments in the implementation of the SWMP. The Creeks Restoration and Water Quality Improvement Division (Creeks Division) of the Parks and Recreation Department provides overall coordination and administration. The Waterfront and Airport Departments take lead roles in the implementation of the SWMP elements that are specific to their operations.

1 U.S. Census Bureau, Census 2000

Public Review Process for SWMP Development

The preparation of the City's SWMP has been subject to extensive public review and discussion. The following steps have been taken to prepare a SWMP that is responsive to the community's needs and meets the requirements of the State General Permit.

1. Release of the draft SWMP for public review on February 28, 2003.
2. Public meeting of the Creeks Restoration and Water Quality Improvement Citizens Advisory Committee on March 12, 2003 to review the draft and solicit public comments.
3. Release of final draft SWMP on June 11, 2003.
4. Public meeting of the Creeks Restoration and Water Quality Improvement Citizens Advisory Committee on June 18, 2003 to review and recommend final SWMP.
5. Santa Barbara City Council meeting on July 22, 2003 for Council consideration and approval prior to submittal to the RWQCB.
6. Comments on the draft SWMP are received from the Regional Water Quality Control Board on December 23, 2004.
7. Public meeting of the Creeks Restoration and Water Quality Improvement Citizens Advisory Committee on March 9, 2005 to review the RWQCB comments.
8. City releases final draft SWMP for public review on June 9, 2005. The SWMP is posted to the City's website.
9. Public meeting at the Creeks Restoration and Water Quality Improvement Citizens Advisory Committee on June 15, 2005 to take public comments and review the SWMP.
10. Public meeting at the Santa Barbara Planning Commission on July 7, 2005 to take public comments and review the SWMP.
11. Public meeting at the Creeks Restoration and Water Quality Improvement Citizens Advisory Committee on July 13, 2005 to take public comments and review the SWMP.
12. City receives five comment letters, revises the SWMP and releases it for public review on October 12, 2005. The SWMP is posted to the City's website.
13. Public meeting at the Creeks Restoration and Water Quality Improvement Citizens Advisory Committee on October 19, 2005 to review the SWMP prior to submittal for City Council review.
14. City finalizes the SWMP on January 13, 2006 for public review prior to a public meeting at the Santa Barbara City Council on January 24, 2006.
15. Public meeting is held by the City Council on January 24, 2006, to take public comments and authorize submittal of the draft SWMP to the Central Coast RWQCB. .
16. The City Council authorized submittal of the SWMP in January 2006, with direction to begin implementation of the SWMP's water quality goals and BMPs, despite the RWQCB's pending formal approval. Another round of

comments were received from the RWQCB in January 2007, followed by a resubmittal of the revised SWMP in March 2007.

17. Public meeting at the Creeks Restoration and Water Quality Improvement Citizens Advisory Committee on April 11, 2007 to discuss status of updated SWMP.
18. The City has been implementing its revised SWMP since July 1, 2007.
19. Public meeting held at the University of California, Santa Barbara, with Regional Water Quality Control Board Staff on April 8, 2008.
20. The City revised and resubmitted the SWMP to the RWQCB again in May 2008 to reflect the production and implementation of the City's Storm Water BMP Guidance Manual.
21. Comments were received from the RWQCB, in addition to three public comment letters, in August 2008.
22. The City responded to comments and proposed revisions, which resulted in a Notice of Enrollment letter from the RWQCB in November 2008, along with a table of final required revisions, due in January 2009.
23. The City submitted the Final Revised SWMP to the RWQCB in January 2009, which formally kicked off Year 1 of the City's SWMP implementation.

Concurrent with the public review process for the main Santa Barbara SWMP, both the Airport and Waterfront Departments prepared public review drafts of their SWMP elements, and either conducted public meetings or posted the draft documents to the web. The Airport took the following public review steps:

1. Presented proposed plan to Goleta Slough Management Committee on May 12, 2005. Goleta Slough Management Committee recommended support.
2. Presented to Airport Commission on July 20, 2005. Commission recommended City Council approve the proposed plan and authorize staff to submit the proposal to Regional Water Quality Control Board.
3. Distributed draft SWMP to Santa Barbara Channelkeeper and Heal the Ocean on June 17, 2005. Received comments and made a series of revisions prior to posting the draft SWMP on the Airport website (flysba.com) in early November 2005.

Given that the original SWPPP went through an extensive public review process, the Waterfront Department took the following steps to provide public review:

1. Proposed MCMs and updated SWPPP was posted to the City's website in October 2005.
2. Comments on the proposed SWMP elements were received and the document was revised and re-posted in early December 2005.

<u>Contact Information</u>

Although implementation of the SWMP is a citywide effort, the Creeks Restoration and Water Quality Improvement Division (Creeks Division) is responsible for coordination

and administration of the SWMP. The appropriate City department or division that will be implementing the SWMP is included in the discussion of each Minimum Control Measure and shown in Appendix B. For more information on the City's SWMP, contact:

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2.0 Regulatory Background

The following discussion provides information on the history of the Clean Water Act and resulting NPDES Program. Included in the discussion are the purpose of the Storm Water Management Program and descriptions of the six minimum control measures.

2.1 Clean Water Act History

Growing public awareness and concern for controlling water pollution led to the enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as the Clean Water Act (CWA). The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States. It gives the Environmental Protection Agency (EPA) the authority to implement pollution control programs such as setting wastewater standards for industry. The CWA also sets water quality standards for all contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a National Pollutant Discharge Elimination System (NPDES) permit is obtained.[2]

The NPDES program is designed to track point sources of pollution. Point sources are defined as single, identifiable sources that discharge pollutants into the environment. They require the implementation of controls necessary to minimize the discharge of pollutants. The NPDES program initially targeted easily detected sources of water pollution such as municipal sewage and industrial process wastewater, and was successful in improving water quality. However, the NPDES program did not address other significant sources of water quality impairment such as storm water runoff.[3]

In 1987 the CWA was amended to address the environmental impact of storm water by adding Section 402(p), which established a comprehensive, two-phase approach to storm water control. Phase I and Phase II storm water regulations treat storm water discharges from municipalities as point sources of pollution. As a result, local governments covered by the Phase I and Phase II regulations must – like all point source dischargers – obtain federally enforceable NPDES permits under the CWA.[4]

Phase I was promulgated on November 16, 1990. The Phase I regulations require large sources of storm water discharge to apply for NPDES permits. Large sources include medium and large municipal storm drain systems serving 100,000 people or more as well as several categories of industrial activities including construction activity disturbing five or more acres of land. The NPDES permits require cities to develop a storm water management program, track and oversee industrial facilities that are also regulated

[2] "Clean Water Act History", www.EPA.gov, March 2006, United States Environmental Protection Agency, June 2005, <http://www.epa.gov/region5/water/cwa.htm#History>

[3] "Storm Water Regulatory History", City of Rapid City, South Dakota, City of Rapid City, South Dakota, June 2005 <http://www.rcgov.org/pubworks/storm water/regulatory_history.htm>

[4] ibid.

under the NPDES storm water program, conduct monitoring, and submit periodic reports.[5]

Phase II regulations were promulgated on December 8, 1999 and expand the scope of the NPDES program to include smaller local municipalities serving populations of less than 100,000. As with Phase I, Phase II requires local governments, referred to as small municipal separate storm sewer systems or "Small MS4," to obtain NPDES permit coverage. These local governments must design a storm water management program to include the development and implementation of six specified measures that reduce storm water pollution to the maximum extent practicable. Evaluation and reporting measures are also required. In addition, the rule sets requirements for construction activity that disturbs between one and five acres and extends a previously set deadline for municipalities that operate industrial activities regulated under Phase I.[6]

2.2 Description of the Phase II NPDES Program

The Phase II NPDES Program is intended to reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of storm water discharges that have the greatest likelihood of causing continued environmental degradation. Storm water discharges from urbanized areas are a concern because of the high concentration of pollutants found in these discharges. Concentrated development in urbanized areas substantially increases impervious surfaces, such as city streets, driveways, parking lots, and sidewalks, on which pollutants from human activities settle and remain until a storm event washes them into nearby storm drains. Common pollutants may include sediment, nutrients, bacteria and viruses, oil and grease, organic compounds, and gross pollutants such as trash. Storm water runoff picks up, transports and discharges these pollutants, untreated, to waterways via storm drain systems. These discharges can result in the loss of wildlife habitat, reduced aesthetic value, and contamination of recreational waterways that can threaten public health.[7]

The NPDES Phase II program is implemented by California State government under the 1990 Porter-Cologne Water Quality Control Act. The California State Water Resources Control Board (SWRCB) and its regional agencies are responsible for both interpreting the regulations and issuing the permits to local agencies that operate industrial facilities and MS4s. The State of California NPDES Small MS4 General Permit requirements were adopted on April 30, 2003.[8]

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[5] "Storm Water Phase II Final Rule, An Overview", www.EPA.gov, January 2000, United States Environmental Protection Agency, June 2005, <http://www.epa.gov/npdes/pubs/fact1-0.pdf>

[6] "Storm Water Regulatory History", City of Rapid City, South Dakota, City of Rapid City, South Dakota, June 2005 <http://www.rcgov.org/pubworks/storm water/regulatory_history.htm>

[7] "Storm Water Phase II Final Rule, An Overview", www.EPA.gov, January 2000, United States Environmental Protection Agency, June 2005, <http://www.epa.gov/npdes/pubs/fact1-0.pdf>

[8] State Water Resources Control Board (SWRCB) Water Quality Order No. 2003-0005-DWQ. National Pollutant Discharge Elimination System General Permit No. CAS000004. Waste Discharge Requirements (WDRS) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (General Permit). State Water Resources Control Board: Sacramento, California. Adopted April 30, 2003, page 1.

2.3 Purpose of the Storm Water Management Program

The purpose of the Storm Water Management Program is to implement and enforce a program designed to reduce the discharge of pollutants to the "maximum extent practicable" (MEP) to protect water quality. According to the State of California General Permit, the MEP standard is an ever-evolving, flexible, and advancing concept, which considers technical and economic feasibility. Since knowledge about controlling urban runoff continues to evolve, so does that which constitutes the Maximum Extent Practicable. Reducing the discharge of storm water pollutants to the MEP in order to protect beneficial uses requires review and improvement, which includes seeking new opportunities. To do this, the City must effectively assess the SWMP on an annual basis by conducting and documenting an evaluation and assessment of each relevant element of its program and revising, as necessary, SWMP activities, control measures, BMPs, and measurable goals to meet the MEP.[9]

2.4 Minimum Control Measures and Annual Reporting

The Phase II NPDES Program contains the following six program elements, termed "Minimum Control Measures" intended to reduce polluted runoff.

1. Public Education and Outreach

Implement a public education program to distribute materials to the community or conduct equivalent outreach activities about the impacts of polluted storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

2. Public Participation/Involvement

Comply with State and local public notice requirements when implementing a public participation/involvement program. This provides opportunities for citizens to participate in the storm water management program development and implementation, including effectively publicizing public hearings and encouraging citizen representatives to attend these community meetings.

3. Illicit Discharge Detection and Elimination

1. Develop, implement and enforce a program to detect and eliminate illicit discharges (as defined at 40 CFR 122.26(b)(2)) into the regulated Small MS4.
2. Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and locations of all waters of the U.S., that receive discharges from those outfalls.
3. To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions.

[9] "Storm Water Phase II Final Rule, An Overview", www.EPA.gov, January 2000, United States Environmental Protection Agency, June 2005, <http://www.epa.gov/npdes/pubs/fact1-0.pdf>

4. Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the system that are not authorized by a separate NPDES permit.
5. Inform public employees, businesses, and the general public of the hazards that are generally associated with illegal discharges and improper disposal of waste.
6. Address the following categories of non-storm water discharges or flows (i.e., authorized non-storm water discharges) only if they are identified as significant contributors of pollutants to the Small MS4:

    1. Water line flushing
    2. Irrigation water
    3. Landscape irrigation
    4. Springs
    5. Diverted stream flows
    6. Water from crawl space pumps
    7. Rising ground waters
    8. Footing drains
    9. Potable water discharges
    10. Lawn watering
    11. Foundation drains
    12. Individual residential car washing
    13. Uncontaminated pumped ground water
    14. Dechlorinated swimming pool discharges
    15. Flows from riparian habitats and wetlands
    16. Uncontaminated groundwater infiltration to separate storm sewers
    17. Air conditioning condensation

Discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants of waters of the U.S.

4. Construction Site Runoff Control

Develop, implement and enforce a program to reduce pollutants in any storm water runoff to the Small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from a construction activity disturbing less than one acre must be included in the SWMP if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The program must include the development and implementation of, at a minimum:

1. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions, or other effective mechanisms, to ensure compliance, to the extent allowable under State, or local law.
2. Requirements for construction site operators to implement appropriate erosion and sediment control best management practices.

3. Requirements for construction site operators to control waste, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste, that may cause adverse impacts to water quality, at the construction site.
4. Procedures for site plan review which incorporate consideration of potential water quality impacts.
5. Procedures for receipt and consideration of information submitted by the public.
6. Procedures for site inspection and enforcement of control measures.

5. Post-Construction Runoff Control

1. Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the Small MS4 by ensuring that controls are in place that would prevent or minimize water quality impacts.
2. Develop and implement strategies, which include a combination of structural and/or non-structural BMPs appropriate for the community.
3. Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law. The requirements must include the design standards contained in Attachment 4 of this General Permit.
4. Ensure adequate long-term operation and maintenance of BMPs.

6. Pollution Prevention/Good Housekeeping

1. Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.
2. Using training materials that are available from EPA, the State, or other organizations, your program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet building maintenance, new construction and land disturbances, and storm water system maintenance.

For each of these six Minimum Control Measures, there are BMPs and associated Measurable Goals that will be implemented during the course of the 5-year permit term. Storm Water Management Programs must describe BMPs and associated Measurable Goals that will fulfill the requirements of the six Minimum Control Measures. It is through the implementation and evaluation of BMPs and Measurable Goals that municipalities will ensure that the objectives of the Phase II NPDES Program are met. BMPs and measurable goals incorporate adequate measures of effectiveness in terms of achieving permit requirements and protecting and restoring water quality and beneficial uses. The measurable goals must include, as appropriate, the months and years for scheduled actions, including interim milestones and frequency of the action.

Annual Reporting

The data collected for each BMP identified in this SWMP will be compiled and summarized in annual reports. The City will use CASQA's *Municipal Stormwater Program Effectiveness Assessment Guidance Manual* to review results of the SWMP's control measures and program elements and measure how they obtain different outcome levels discussed in the Manual, annually. If the SWMP BMPs and measurable goals are found to be ineffective or do not achieve stated goals or desired "outcome levels," the City will revise them to optimize BMP effectiveness. As the City's Storm Water Management Program matures, assessments of the BMPs and measurable goals will begin to shift to higher outcome levels.

3.0 Pollutants of Concern and Santa Barbara's Water Quality

There are a number of potential urban storm water pollutants of concern that the NPDES Phase II Storm Water Management Program aims to control on a national level. These urban pollutants may include sediment, nutrients, microbiological contaminants, hydrocarbons, pesticides, metals, additional organic compounds, and gross pollutants such as trash, green waste and other debris that collects in storm drains or is dumped illegally into waterways. Urbanization and increases in population density directly affect the type of pollution that enters storm drains.[10] The U.S. EPA's water quality inventory revealed in the 1990's that one third of all surface waters in the United States do not meet water quality standards due to non-point source pollution.[11]

3.1 Background on Pollutants of Concern

Sediment

Sediment is often a component of storm water that can be detrimental to aquatic life (primary producers, benthic invertebrates, and fish) by interfering with photosynthesis, respiration, growth, reproduction, and oxygen exchange in water bodies. Sediment can transport other pollutants that are adsorbed to grain surfaces, including bacteria, nutrients, metals, and hydrocarbons. Sediment is the primary component of "total suspended solids" (TSS), a common water quality analytical parameter. Total suspended solids are measured by filtering water and then drying and weighing the amount of material that is removed. The parameter "total dissolved solids" (TDS) quantifies the amount of dissolved solids in a sample, such as ions of salts including sodium, chloride, calcium, carbonate, potassium, or magnesium. Because these ions are conductors of electricity, a proxy for TDS can be conductivity measurements taken with a pocket meter.

Nutrients

Nutrients including nitrogen and phosphorous, the major plant nutrients used for fertilizing landscapes, may be found in storm water. High concentrations of these nutrients can result in excessive or accelerated growth of algae, resulting in impaired use of water in lakes and other sources of water supply. In addition, un-ionized ammonia (one of the nitrogen forms) can be toxic to fish.

Microbiological Contamination

Pathogenic bacteria and viruses can be contaminants of storm water. For separate storm drain systems, sources of these contaminants may include human and animal excrement, sewage, and septage. Unfortunately, pathogens are extremely difficult, if not

[10] Monterey Bay Sanctuary Citizen Watershed Monitoring Network, First Flush Report, November 7, 2002, p. 3

[11] Barry Cullingworth. Planning in the USA: policies, issues and processes. New York: Routledge, 1997, p. 220.

impossible, to measure. Thus, the parameter "fecal indicator bacteria" is used to infer the presence of fecal material in samples. Fecal indicator bacteria are present in sources of human waste but they can also grow in the natural environment, confounding results. High levels of indicator bacteria in storm water have led to the closure of beaches, lakes, and rivers to contact recreation across the country. However, current indicator-based standards are based on health studies where people were exposed to human fecal wastes. The relevance of these indicator standards to assess the risk to human health is questionable. Therefore, it is usually necessary to perform additional analyses to identify actual sources of high indicator bacteria levels.

Hydrocarbons

Storm water can carry oil and grease that contain a wide array of hydrocarbon compounds, some of which are toxic to aquatic organisms at low concentrations. Sources of oil and grease include leakages, spills, cleaning and sloughing associated with vehicle and equipment engines and suspensions, leaking and breaks in hydraulic systems, restaurants, and waste oil disposal.

Metals

Metals including lead, zinc, cadmium, copper, chromium, and nickel can be found in storm water. Many of the artificial surfaces of the urban environment (e.g., galvanized metal, paint, automobiles, or preserved wood) contain metals, which enter storm water as the surfaces corrode, flake, dissolve, decay, or leach. Over half the trace metal load carried in storm water is associated with sediments. Metals are of concern because they are toxic to aquatic organisms, can bioaccumulate (accumulate to toxic levels in aquatic animals such as fish), and have the potential to contaminate drinking water supplies.

Pesticides

Pesticides (including herbicides, fungicides, rodenticides, and insecticides) have been detected in storm water throughout the nation. As pesticide use has increased, so too have concerns about adverse effects of pesticides on the environment and human health. Accumulation of these compounds in simple aquatic organisms, such as plankton, provides an avenue for biomagnification through the food web, potentially resulting in elevated levels of toxins in organisms that feed on them, such as fish and birds.

Gross Pollutants

Gross Pollutants (trash, debris, and floatables) are often carried by storm water and may also include adsorbed heavy metals, pesticides, and bacteria. Trash can include plastics, paper, yard debris, discarded household items, and other materials. Urbanization and increases in population density directly affect the type of pollution that

enters storm drains.[12] Typically resulting from an urban environment, industrial sites, and construction sites, trash and floatables are aesthetically unappealing. Gross pollutants also include plant debris (such as leaves and lawn clippings from landscape maintenance), human and animal excrement, street litter, plastics, trash, discarded household items and other materials. Such substances may harbor bacteria, viruses, vectors, and depress the dissolved oxygen levels in streams, lakes, and estuaries.

Other Organics

Additional organics may be found in storm water in low concentrations. Often synthetic organic compounds (adhesives, cleaners, sealants, solvents, etc.) are widely applied and may be improperly stored and disposed. In addition, deliberate dumping of these chemicals into storm drains and inlets causes environmental harm to waterways.

3.2 Santa Barbara's Watersheds and Water Quality

The City embraces the concept of living within watersheds through education and outreach programs and recognizes that the watersheds we live in extend beyond our City boundaries (see Section 4.1.1, #3, Informational Materials, for a summary on the City's Community Guide to Healthy Watersheds). The City's watersheds are contained within the Santa Barbara Coastal hydrologic unit. This unit consists of the south face of the Santa Ynez Mountains, which trends east to west, at an elevation of about 3,000 feet above mean sea level (MSL). From the crest of the mountains to the ocean is the approximately 7- to 10-mile-wide band that contains more than half the county's population, and all of the City of Santa Barbara. Although the Santa Barbara Coastal hydrologic unit is often classified as a single watershed, it consists of 50 to 60 individual stream systems, including four major creeks within the City of Santa Barbara; Arroyo Burro, Mission, Laguna, and Sycamore Creeks.

Water quality depends on healthy watersheds. The City's main water quality focus areas (and where they are addressed in this Program) are:

- Restaurants (Sections 4.1.1, 4.3.1, 4.5.1)
- Automotive shops (Sections 4.1.1, 4.3.1, 4.5.1)
- Municipal sidewalk washing (Section 4.3.1, #6)
- Golf Course runoff (Section 4.6.1)
- Human feces/Homeless encampments (Section 4.6.1)
- Wash water from residents/community (Sections 4.3.1 and 4.6.1)
- Landscape irrigation (Section 4.3.1)
- Trash (Sections 3.1, 4.1.1, 4.3.1, 4.5.1, 4.6.1, 5.3.2, 5.3.3, 5.3.6)
- Mobile cleaners (4.1.1 and 4.3.1)
- Sewage spills/leaks (Sections 3.1, 4.3.1, 5.3.2, 5.3.3)
- Hotels (Section 4.1.1 and Table 4.1, BMP #1.8)

[12] Monterey Bay Sanctuary Citizen Watershed Monitoring Network, First Flush Report, November 7, 2002, p. 3

- Landscaping businesses (Sections 4.5.1 and 4.6.1)
- Construction (Sections 3.3, 4.1, 4.3.1, 4.4, 4.6.1, 5.3.4, 6.3.4)
- Lack of public restrooms (Section 4.6.1)

Storm water runoff is the single largest source of surface water pollution in the City. As part of addressing this issue, the City has been working to produce a Technical Guidance Manual for Post Construction Storm Water Management (Manual). The Manual describes and demonstrates Low Impact Development (LID) concepts and offers specific designs that address storm water runoff pollution to be implemented into City development and redevelopment projects. The design concepts focus on hydromodification controls, maximizing infiltration, minimizing runoff, protecting riparian areas, minimizing pollutant loading, and providing long-term watershed protection. These concepts and designs provide assistance in meeting the post-construction storm water management requirements contained in this SWMP (Section 4.5.1), and preparation of the Manual is a key task identified in this SWMP (see Table 4.5, BMP# 5.4, 5.5). The Manual also responds to requests from City land development review staff and project applicants for guidance in attaining the City's storm water treatment, peak flow rates, and volumetric standards.

Specifically, the Manual will assist project applicants including developers, engineers, planners, landscape architects, and property owners in the selection, integration, design, and implementation of a variety of storm water best management practice (BMP) options for a project site. Once completed, the Manual will identify and describe a range of BMPs including rain barrels, bioswales, and infiltration basins, which are designed to capture and treat storm water runoff from development and redevelopment projects.

The City of Santa Barbara began its efforts to address water quality concerns with the South Coast Watershed Characterization Study (SCWCS) in 1998. The three major creeks were sampled: Sycamore, Mission and Arroyo Burro. The results identified indicator bacteria as a pollutant of concern in these watersheds. Since that time the City has expanded its storm water quality monitoring program (see BMP 5.6) in order to better determine the sources and types of pollutants discharged to creeks and the ocean. See Appendix G for more information.

Measuring the Effectiveness of the City's SWMP

In 2001, the City began a creek and ocean water quality monitoring program (see BMP 5.6) to focus its efforts to identify potential types and sources of pollutants (see Appendix G). The main goals of the monitoring program, beyond quantifying pollution levels in the watersheds and determining habitat quality, are to evaluate the effectiveness of the City's storm water programs and projects in reducing pollutant levels, and to evaluate the effectiveness of the City's restoration and water-quality treatment projects in improving habitat quality.

Since 2001, the City has sampled storm drains, creeks, lagoons, and ocean water. Dry weather efforts focus primarily on indicator bacterial pollution and physical parameters

such as temperature, turbidity and pH. Over the years, the City has increased the number of storm events and the range of pollutants that are sampled. To date, the City has identified specific storm drain outlets that are most likely to discharge urban runoff which contains indicators of certain contaminants. The City has completed water quality improvement projects on three of these drains: Hope Avenue, Haley Street, and the Westside drain (at Bohnett Park). These projects utilize various treatment methods, including ultra-violet treatment and diversion to sewer, to reduce discharges of contaminated runoff by these drains.

As a result of sampling thus far, the City has identified *known* and *suspected* pollutants of concern (POC). These POCs and their potential sources are outlined in Table 3.1. These pollutants are targeted with the implementation of BMPs identified in this Storm Water Management Program. Indicator bacteria and total phosphorus have been identified as known POCs based on storm samples containing levels that are consistently above appropriate water quality criteria. Oil and grease is identified as a known POC based on the visual observation of oil sheens in creeks during periods of runoff.

The City has deemed other pollutants *suspected* POCs, for which sampling has shown tolerable results despite suspected widespread use or runoff in the watersheds. These include sediment, nitrate, pesticides, and certain metals. Additional pollutants have not been detected in the storm samples and are not suspected as a problem in the watersheds, including certain metals. Although there is no clear indication that other potential storm water pollutants are present in detectable amounts, the City continually revises and improves its monitoring efforts in order to determine the presence and sources of storm water pollutants.

In addition to its dry weather and storm monitoring program, in 2004, the City funded research partnerships with United States Geological Survey and the University of California, Santa Barbara to begin identifying the sources of indicator bacteria and to develop better methods of monitoring the presence of harmful bacterial pollutants in surface waters. That research will continue in 2008 and 2009 with a Microbial Source Tracking Protocol Development Project (see BMP 5.7). Since 2001, the City has gathered extensive data on the presence of indicator bacteria throughout its watersheds. Although the City now has a much better understanding about the presence of indicator bacteria throughout its creeks, the specific sources of pollution and the degree to which the recreational waters are harmful to human health are not known. The proposed research will identify where, when and how human waste is transported to storm drains, creeks, and beaches in Santa Barbara. The value of the research is that it will provide protocols for coastal managers throughout California to use for conducting source investigations of storm drains that produce beach warnings due to exceedances of indicator bacteria standards.

Another tool the City uses for effectively assessing the SWMP is the ongoing annual Biological Assessment Program (see BMP 5.8). This program is used to assess and monitor the biological integrity of local creeks as they respond through time to natural and human influences. The program involves annual collection and analysis of benthic

macro invertebrate (BMI) samples and other pertinent physiochemical and biological data in creek reaches using US EPA endorsed rapid biological assessment (or "bioassessment") techniques, such as macroinvertibrate community composition and channel morphology. This assesses the effectiveness of the SWMP by determining differences among watersheds, how the biological integrity in our creeks change over time, and how the creeks respond to restoration projects and other City efforts to improve water quality.

303(d) Listed Waterbodies

The City of Santa Barbara has three water bodies on the 303(d) list. Arroyo Burro, Mission Creek, and Goleta Slough have each been listed as impaired water bodies for pathogens (as measured by indicator bacteria). Goleta Slough is also listed for metals, priority organics, and sedimentation and siltation. Mission Creek is listed for "unknown toxicity" related to urban runoff and storm drain systems.[13] The City's SWMP specifically addresses the 303(d) listed pollutants and anticipates that the SWMP will be revised when Total Daily Maximum Loads (TMDLs) are established.

3.3 Storm Monitoring Program Methods and Results

Each rainy season the City samples at least the first storm event in order to capture the "first flush" of storm water, which should convey the highest levels for most pollutants. If practical, additional storm events may be sampled during the season. The City has sampled at least one storm event during each of the past six rain seasons (from 2002/2003 through 2007/2008). During each event, the City sampled between three and 11 sites, including storm drains and creek water, at a single time point. Using adaptive management, if a constituent was consistently not detectable after several events, resources were applied to test new constituents. Challenges to storm sampling include the unpredictable timing of events, and the rapid rise and fall of water levels in the Santa Barbara area. To help overcome these challenges, the City has purchased an automatic sampling and flow-measuring device to gather better information about pollutant loading during storm events.

The following discussion provides information that has been gathered from the City's storm-event sampling. A more detailed discussion of the City's year-round monitoring program is included in Appendix G. The water quality monitoring program is reviewed and revised on an annual basis. Although not required under the NPDES Phase II regulations and State General Permit, the City will provide the RWQCB with annual updates on the results of its monitoring program.

Sediment (Total Suspended Solids; TSS)

Sediment loads were low during most storm sampling events but were extremely high during 2004/2005 due to large rain events.

[13] Central Coast Regional Water Quality Control Board. 2002 CWA Section 303(d) List of Water Quality Limited Segment. Approved by the United States Environmental Protection Agency, July 2003.

The landforms and hydrology of South Coast watersheds, including those within the City, provide much of the sediment loads to City creeks under storm conditions. The sediment sources can be natural, such as from known slide areas in the upper watershed. Unimproved forest roads may also contribute significantly to sediment runoff from the upper watershed. Channel and bank erosion are factors, and development on steep slopes can contribute sediment runoff to creeks. Sediments from construction site runoff have been observed.

Nutrients

Nitrogen has not been found to be a consistent problem at any of the monitoring sites. Ammonia levels were lower than those known to cause toxicity. Nitrite was not detected in any samples. Nitrate levels were above EPA benchmark levels in several samples but were not high enough to cause eutrophication. Orthophosphate was below detection limits in nearly all samples. However, total phosphorus often exceeded a commonly used eutrophication benchmark of 0.1 mg/L for streams and rivers (USEPA). The City will target nutrient research and the potential to cause algal blooms during the permit period.

Microbiological Contamination

Indicator bacteria have exceeded recreational contact standards in nearly all storm water samples, often by orders of magnitude. This result is typical throughout coastal California and may be associated with sediment loads. Additional research is necessary to understand the winter sources of indicator bacteria.

Hydrocarbons

Oil and grease have been detected in many storm water samples, and visible sheens have been observed in certain creeks and in runoff entering storm drains. Similar results were found for Total Petroleum Hydrocarbons.

Metals

With the City's storm water monitoring efforts to date, several metals have never been detected, including arsenic, cadmium, mercury, and silver. Chromium has been detected infrequently and at levels below EPA benchmarks. Magnesium, iron, and potassium have been detected in most cases but levels are not thought to be of concern. Copper, lead, nickel and zinc have been detected at levels that may be of concern.

In 2002, the City expanded street sweeping and conducted monthly sampling of street sweeping waste (solid waste) during the first year of sweeping to determine pollutant levels of the waste. Total petroleum hydrocarbons (TPH) results were analyzed and it was observed that the majority of the TPH was in the asphalt fraction. Based on review

of the year-long test results, City street sweeping waste was characterized as non-hazardous and deemed suitable for disposal at a Class III solid waste disposal facility by the County of Santa Barbara.

Pesticides and herbicides

To date the City has tested for pesticides (Glyphosate, organophosphorus pesticides, chlorinated herbicides, and chlorinated pesticides) during four storm events. Of these tests, malathion was detected at one site on one occasion, and glyphosate was also detected at one site on one occasion.

Total Dissolved Solids (TDS)

Results for TDS have been sporadic, with a few samples returning values above drinking water standards. TDS is typically high in local surface water and groundwater due to geology. The reported value in the City 2005 Water Quality Report was 629 mg/l. When testing storm water, TDS values (measured in the field as electrical conductivity) typically decline as storm flows increase.

Gross Pollutants

Gross pollutants have been visually observed entering creeks at certain outfalls, and floating in lagoons and at beaches following significant rainfall. The City's gross pollutant data consists of weight of gross pollutants removed from the City watersheds through creek cleanups, street sweeping, catch basin filter cleaning and storm drain inlet cleaning.

Table 3.1 Storm Water Pollutants of Concern

Pollutant Group	Classification	Basis of classification	Potential Sources (Targeted BMPs)
Sediment (TSS)	Suspected POC	Significant natural erosion occurs in the upper watershed. Large number of dirt roads in upper watershed Visual observation of bank failure along creek side developments. Visual observation of sediment runoff at construction sites.	1) Natural Erosion 2) Dirt roads in upper watershed 3) Creek side development 4) Construction sites Agriculture in upper watershed
Nutrients Total Phosphorus Nitrate, etc.	 Known POC Suspected POC	Total P Above EPA eutrophication benchmark in storm samples. Extensive use of fertilizers and soaps/detergents throughout watersheds may promote algal blooms. Downstream increase in values through urban areas.	1) Fertilizer use on private and public properties. 2) Discharge of wash water containing soaps and detergents to creeks. Sources include restaurant maintenance practices, commercial property maintenance, residential car washing.
Indicator Bacteria	Known POC	Bacteria above recreational contact standard in most storm samples, and though sporadic, dry weather flows often exceed the contact standard	1) Direct deposit of human waste. 2) Leaking sewage or septage. 3) Domestic or wild animal waste. 4) Restaurant outdoor washing activities
Hydrocarbons Oil and Grease	 Known POC	Visual observation of oil sheen entering drains and in creeks during storms.	1) Automotive sources transported from streets, auto repair services and parking lots exposed to storm water.
Pesticides	Suspected POC	Malthion detected in one of eleven samples. Known use of pesticides throughout watersheds. High toxicity of compounds for aquatic life.	1) Landscape areas
Metals: Zinc Mg, Fe, K, etc Lead, etc.	 Suspected POC Suspected POC Not a suspected POC	 Zinc is frequently present in storm water at low levels. Mg, Fe & K from natural & human sources Toxicity, threat to drinking water supplies	1) Automobiles. 2) Naturally occurring 3) Illegal/improper disposal of lead batteries 4) Outdoor storage of metals (Zinc, lead)
Gross Pollutants	Known POC	Large quantities of gross pollutants observed in catch basins and entering creeks at outfalls	1) Streets and storm drain inlets 2) Areas with high pedestrian traffic 3) Landscape maintenance practices

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4.0 City of Santa Barbara Storm Water Management Program

The purpose of the City of Santa Barbara SWMP is to implement and enforce a series of management practices, referred to as "Best Management Practices" (BMPs), that are designed to reduce the discharge of pollutants from the municipal separate storm sewer systems (MS4) to the "maximum extent practicable", to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. The following discussion outlines how Santa Barbara will implement the six Minimum Control Measures (MCMs) to comply with the State General Permit. (Please refer to Section 2.4 for a detailed description of the MCM requirements.)

4.1 Minimum Control Measure 1: Public Education and Outreach

The City of Santa Barbara has a well-established public education and outreach program to educate Santa Barbara residents about the impacts of storm water discharges on water quality and to provide steps that the public can take to reduce pollutants in storm water runoff. MCM 1 is implemented primarily by the Creeks Restoration and Water Quality Division. This program targets youth, adults, families and businesses in schools, after-school programs, neighborhoods, community events, informational materials and media campaigns. In addition to developing programs that reach specific target audiences based on demographics, many programs are provided in both English and Spanish since Santa Barbara has a well-established Latino community.

A public opinion survey and education plan completed in 2002 provided the basis for many of the programs that are under way and planned for the five-year permit term. The purpose of the survey was to determine the level of community awareness on storm water issues. The survey provided important information for public education and outreach program development and for specific target audiences. The findings of the survey, as well as extensive stakeholder interviews, resulted in the development of a comprehensive education plan. The education plan identified a number of programs that can play an important role in educating the public about storm water impacts and pollution reduction strategies. These are generally organized under youth education, community outreach, business outreach, and media campaigns.

The City's existing education and outreach program meets the requirements of the State General Permit. The City will continue to conduct a number of these programs throughout the five year permit period. Selection of these programs is based on the City's experience to date as well as extensive research and planning for the development of new programs that strategically target members of the Santa Barbara community. In addition, each year prior to the adoption of a new budget, program objectives are reviewed and revised as needed in order to ensure relevancy and cost-effectiveness.

The Measurable Goals and Pollutants of Concern addressed in the Public Education and Outreach Minimum Control Measure are shown in Table 4.1.

4.1.1 Best Management Practices

1. Educational programs for school children

The City has an extensive in-school education program that is implemented by City staff and Art From Scrap (AFS), a local non-profit organization that is contracted by the City. The purpose of the in-school program is to educate young school children about the impacts of activities that cause storm water pollution, and to introduce them to the benefits of restoring creeks and protecting creek and ocean water quality (see BMP 1.1).

Underway since 1999, this program began with the development of a watershed curriculum called "Mountains to the Sea". From 2000 to 2008, in partnership with the County of Santa Barbara, Community Environmental Council (CEC), and AFS, curriculum training for teachers was offered annually, and the curriculum was distributed to interested teachers. As part of the curriculum, AFS and City staff conducted classroom presentations to students in grades K-6, and classes took field trips to the South Coast Watershed Resource Center, an educational facility at Arroyo Burro Beach. In 2000, the City also began storm water educational programs at summer camps. Through this program, campers receive a watershed presentation, educational materials, and a field trip to the Watershed Resource Center.

In 2004, the City revised the in-school education programs to update the educational materials and to reach more elementary age students. Specifically, the program for 6th grade students was expanded to include a series of three workshops and trips relating to watersheds, creek ecology, and actions students can take to prevent water pollution. At the same time, other programs that target school children in grades 1 through 5, including Green Kids, Creeks and Watersheds, as well as field trips to creek restoration sites and to the Watershed Resource Center, continue to be conducted. The annual flier that is distributed for these programs is included in Appendix C.

In 2006, CEC authorized Art From Scrap to coordinate all public school educational programming. In the 2007-2008 school-year over 1500 students have participated in City sponsored watershed education programs.

Approximately 3,000 youth are reached on an annual basis through in-school and summer camp programs. The number of youth that participate in the programs remains steady over the years and the City is committed to increasing participation rates. However, participation rates remain dependent on the participation of the school district, teacher interest, and the extent to which individual schools are struggling to meet the "No Child Left Behind" requirements and other learning standards.

Each year the programs are evaluated through teacher surveys (see BMP 1.1) and the educators' experience implementing the programs. Programs are revised accordingly as described above. The City and AFS will continue to revise, as necessary, and

implement in-school education programs. The City will document on an annual basis the number of participants in the school programs, and report the extent to which the program may expand in subsequent years.

2. Youth Enrichment-Based Education

In 2007 the City partnered with several local non-profit organizations to provide after-school and summer programming as a part of youth enrichment pilot projects (see BMP 1.2). The "Speak for the Creeks" city pilot project, led by a local poet and educator, helps to instill a sense of place within a watershed. The program involves a visit to the neighborhood creek to learn, observe, sketch and take photos. The creek walk is followed by an in-class creek collage project using materials from Art from Scrap and a creek poetry writing session. The initial after-school project involves students in the City's Recreation Afterschool Program (RAP), and the poetry and artwork was displayed at the Main Public Library.

Youth CineMedia is a nationally recognized program that utilizes state-of-the-art technology to help teach teenagers the fundamentals of digital video, music production, photography and other multimedia. Youth CineMedia (YCM) also provides area youth with the means to create inspiring, thought-provoking media that promotes dialogue and social change, as well as the training, knowledge and relationships that help foster expression and confidence. City Creeks works with YCM to develop bilingual public service announcements, posters, short films and other media to help educate broader sector of the community about storm water pollution prevention.

3. Informational Materials

In 1999, the City and County of Santa Barbara developed a series of bilingual informational brochures on storm water quality targeting dog and horse owners, creekside residents, and gardeners plus a general storm water brochure called "The Ocean Begins on Your Street". These materials were produced in both Spanish and English. (See examples in Appendix C.) Over the past six years these brochures have been distributed at special events, by mail, through enforcement activities, and by request. Target audiences include general residents that attend community events such as Earth Day, the Sustainable Landscape Fair, Organic Festival, community workshops, and Creek Week, among others. Specific audiences, such as business owners and residents, are reached through personal contact when illegal discharge issues are addressed. Materials are also distributed in conjunction with specific projects and events.

While still using existing brochures, the City will be developing new informational brochures over the next five years to reach specific target audiences in the community including individuals, businesses, community members who attend public outreach events, and others, as needed, for public education efforts. The City has determined that brochures developed in conjunction with pollution reduction campaigns are more cost-effective and likely to reach the intended target audience. As a result, any new

materials will be linked directly to neighborhood and business outreach programs and will address methods to reduce pollutants of concern. As an example, the City recently developed a car care brochure that is distributed through local automotive repair businesses as part of the Clean Water Business Certification Program. (See the car care brochure in Appendix C.)

The number of brochures distributed during any one year will vary according to the interest and participation of residents in community events as well as the number and type of illicit discharges that are investigated. However, for every community event, enforcement investigation, and project that includes the distribution of informational materials, the City will document the method of distribution, number distributed, size of target audience, and percent of target audience reached. Each year, the City will strive to reach 50 percent of the intended target audience (see BMP 1.3).

In 2006, the Creeks Division produced a "Community Guide to Healthy Watersheds," titled, "Santa Barbara's Living Watersheds and Ocean." The contents define watersheds and discuss how the City's creeks and beaches depend on healthy watersheds. The City's watershed conditions are analyzed, and community priorities and how residents can help to protect water quality is outlined, as are the benefits of a healthy watershed. The guide is an oversized, (11X14) color publication that was distributed to every household city-wide, as well as to local and City offices where handouts and community information are available for the public.

In general, the target audience for public education and outreach includes: business owners (such as automotive businesses, restaurants, construction-related businesses, mobile washing businesses, hotels, landscaping businesses, and property managers), do-it-yourselfers (at-home oil change, car wash, etc.), both English and Spanish speaking residents (children, teenagers, families, single adults, and pet owners), and visitors. However, the target audience depends on the outreach effort. For example, during public outreach events, the target audience is those English and Spanish-speaking residents who visit the City Creeks Division educational booths. For enforcement investigations, the target audience is the business owner or resident who produced the illicit discharge and the owner/manager of the property where the illicit discharge occurred. For any other projects that the City participates in that offer an opportunity to reach the public through educational brochures and handouts, the target audience is those community members who are participating in the project or who own or manage the property where the project is proposed.

4. Community Events

Every year, city staff participates in a number of community events that provide public education opportunities on storm water impacts. These events include Earth Day, Creek Week, Sustainable Landscape Fair, and others. City participation generally includes an information booth with educational materials as well as information on City-specific water quality improvement projects. The City will continue to participate in at least 5 events per year (see BMP 1.4).

5. Storm Drain Markers

The City has marked all 2,300 storm drain catch basins and drop inlets with bilingual plastic markers that state “No Dumping – Drains to Ocean, No Tire Desecho-Corre al Mar.” The purpose of this program is to educate the public about the connection between the storm and ocean and to discourage illegal dumping. Storm drain markers are cleaned and replaced year-round on an as needed basis. The City will continue to clean and replace storm drain markers on an annual basis (see BMP 1.5).

6. Storm Water Hotline/Creeks Information Numbers

Both the City and the County maintain information telephone lines that allow Santa Barbara residents to report dumping or to seek information about clean water programs. The Project Clean Water hotline is accessible at 1-877-OUR-OCEAN. Callers can report water quality issues or get information such as where to dispose of hazardous waste. Callers can select to be connected with a staff person in the City or County of Santa Barbara during working hours. The call tree for the Storm Water Hotline is included in Appendix B.

In addition to the Storm Water Hotline, the City maintains the Creeks Division Information Number (805-897-2658) and Water Quality Enforcement Number (805-897-2688). Ninety-five percent of these calls are responded to within one working day. All calls are responded to within three working days. These numbers are published in a variety of City publications, including the monthly water bill insert, the Parks and Recreation Activity Guide (twice a year), and the City of Santa Barbara Quick Reference flyer. The water bill insert is mailed to all water customers 12 times per year. The Parks and Recreation Activity Guide is mailed to all Santa Barbara residents twice a year. The Quick Reference Guide is posted on the City’s website and distributed to Santa Barbara residents at community meetings and events. The Creeks Division Information Number is also printed on all creek and water quality-related printed materials including community event fliers, meeting notices, print advertisements, and Creeks Division publications, and is posted on the City’s web site.

Throughout the permit period, the City will continue to document and respond to calls it receives on the Storm water Hotline and the City information and enforcement telephone lines as well as document the number and type of printed materials that include these numbers (see BMP 1.6 and BMP 3.3).

7. Household Hazardous Waste Collection/Drop Off Opportunities

There are two options for the disposal of household hazardous wastes (HHW) for City of Santa Barbara residents. Within the City, there is the City of Santa Barbara’s Antifreeze, Batteries, Oil, and Paint (ABOP) facility which accepts these items from Santa Barbara residents at no cost. The facility is located at 725 Cacique Street in Santa Barbara and is open to residents Monday through Saturday, 9:00 a.m. to 4:00

p.m. The ABOP is run by Marborg Industries. Marborg is planning to upgrade this facility to accept all levels of HHW.

For the disposal of oil based paint, drain cleaners, oven cleaners, floor and furniture polish, paints, stains, finishing products, thinners, old gasoline, anti-freeze, transmission, brake and steering fluids, solvents, fertilizers, pesticides, herbicides, photo chemicals, pool supplies, fluorescent bulbs, thermometers, batteries, etc., Santa Barbara South County residents, including City residents, can dispose of HHW's for free at the Community Hazardous Waste Collection Center. The Collection Center is located on Mesa Road on the UCSB campus and is open on Saturdays, 9:00 a.m. to 3:00 p.m., and Sundays, 11:00 a.m. to 3:00 p.m.

Regarding public awareness, the City maintains an extensive website on waste disposal. Information on both of the facilities described above is included on the website (http://www.santabarbaraca.gov/Recycling-Trash/index.htm). The website also has a link specifically for local businesses, where business owners/managers can inquire about waste hauler services and recycling. Furthermore, all water and trash customers within the City receive HHW and disposal information annually in their water and trash bills.

8. Neighborhood-Based Outreach

In addition to youth education, the City implements neighborhood outreach projects that include educational programming, creek clean-ups and creek restoration activities. Target audiences include Anglo and Latino youth and adults with varying levels of income and education, and depend on neighborhood interest and opportunities for project implementation. Regardless of the target audience, the purpose of these programs is to encourage residents to keep pollutants out of the creeks, and to value the role of healthy creeks for neighborhood vitality. There are a number of factors that play into the selection of each program including: 1) neighborhood interest, 2) number of potential participants, 3) cost, feasibility, time required for implementation, and maintenance requirements, and 4) availability of staff and other community resources for project implementation. Samples of fliers developed for projects implemented in the Eastside neighborhood of Sycamore Creek are included in Appendix C.

The City will continue to develop and implement at least two neighborhood outreach projects each year that are relevant to the creeks and storm water pollution problems found in specific neighborhoods (see BMP 1.7). Furthermore, the City will assess opportunities, where appropriate, to utilize community-based social marketing strategies. This will include neighborhood based outreach projects which will entail pre and post project behavior observation, a goal of removing barriers to behavior change, providing incentives for behavior change, and using "social norms" and expectations to reinforce good water quality habits among Santa Barbara residents (see BMP 1.8).

9. Web Site

The City has an extensive web site, www.sbcreeks.com, which provides information about clean water activities, reports, public meetings and community events. Meeting agendas and materials are posted on a monthly basis. New reports are posted and the community calendar is updated on at least a monthly basis. The web site overall is updated on a quarterly basis. The City routinely advertises its web page through printed materials and television advertising campaigns, community outreach fliers, fact sheets, maps, printed informational materials, project related signage, and the Creeks Division outreach banner. In addition, the City maintains and updates an email list of 680 interested individuals that receive monthly meeting notices as well as other relevant activities (see BMP 1.9). The home page of the web site is included in Appendix C.

10. Clean Water Business Outreach

Since 2000, the City of Santa Barbara has targeted business types that have the potential to contribute to storm water pollution, including: restaurants, construction contractors, automotive service businesses, mobile cleaners, hotels, landscaping businesses, and miscellaneous industrial/commercial businesses. Within the City limits, there are approximately 280 restaurants, 125 automotive service businesses, 266 local construction contractors (1300 construction contractors are licensed to work within the City), and 49 mobile cleaning operations. In collaboration with the County of Santa Barbara, the City developed and distributed bilingual (Spanish and English) informational brochures regarding storm water and urban runoff pollution reduction techniques to these businesses. Brochures and informational materials were distributed in person during site visits and by mail. These materials are included in Appendix C.

In 2004 the City began to further focus this outreach effort with the development of a Clean Water Business Certification Program. The objectives of the Clean Water Business Certification Program are to increase awareness of water quality issues and achieve voluntary compliance with discharge regulations. Developed with the participation of the Automotive Service Council, the program initially targeted automotive repair businesses. In 2006 the City included restaurants in the Program. Postcards that announce the opportunity to participate in the City's Clean Water Business Certification Program and highlight water quality laws were produced (see Appendix C) and distributed to the automotive businesses and restaurants within the City. Additional postcards are sent out as new automotive businesses or restaurants open.

Businesses are offered the opportunity to receive recognition and certification as clean water businesses if they participate in the program. Certification involves the bi-ennial inspection (every two years) of the facility for potential polluted discharges. If the business meets the requirements (the inspection form is included in Appendix C), then it is recognized with a certificate that is signed by the Mayor and a window sticker. Periodic newspaper advertisements announce newly certified businesses. Over the course of the permit period, the program will be expanded to include the other three

business types in the city. If this program proves to be popular, the goal will be to certify at least 100 businesses by the end of the 5-year permit term (or 20 per year).

The business inspections for the Clean Water Business Program will initially focus on the "downtown area corridor" as a priority. Due to the fact the majority of these businesses are more heavily used by the public, their needs for washing facilities and discharging wastes is increased, and therefore the potential for discharges is greater. Also, these downtown businesses are located in a more urbanized area of Santa Barbara. After the program addresses the downtown area, other areas of the City will be addressed (see BMP 1.10).

11. Media Campaigns

Since 1998, the City of Santa Barbara has developed and implemented a variety of media campaigns to educate the general public about water pollution problems and pollution reduction techniques. Media outreach includes English and Spanish radio and television advertisements that are broadcast on a variety of stations. These reach an estimated 45,000 English and Spanish radio listeners and 40,000 television watchers on a regular basis. Print media outreach is focused on specific community events (such as Creek Week and Water Quality Forums) as well as educational messages on the sources of storm water pollution. The City plans to continue to implement annual radio, television and print campaigns during the five-year permit period. The City will report on an annual basis, the number of advertisements placed, specific target audiences and the number reached. Additionally, in partnership with the City of Goleta and the County of Santa Barbra, storm water education advertising signs are placed on the interior and exterior of local buses with bilingual message regarding creek and ocean health. In 2008, the first online advertisement was placed on www.independent.com a local weekly paper's website (see BMP 1.11).

4.1.2 Implementation of Public Education and Outreach

The Creeks Division of the Parks and Recreation Department is responsible for implementation of the Public Education and Outreach Minimum Control Measure. The City also collaborates with the County of Santa Barbara and local community organizations. See Appendix B for an organizational chart that outlines responsible departments and key contacts.

4.1.3 Measurable Goals

There are a number of measurable goals outlined in Table 4.1 that are designed to demonstrate the achievements of public education and outreach on storm water impacts. The City will be focusing on measurable achievements that demonstrate a change in behavior to reduce storm water pollution. The City has baseline information on public knowledge from public opinion surveys completed in 2002 and 2008. Public opinion research allows the City to measure past and current levels of public awareness regarding water quality and storm water issues. Surveys evaluate the effectiveness of

current and past outreach methods and activities, and they help to recalibrate outreach and education approaches to maximize the effectiveness of the City's SWMP. In order to measure the effectiveness of education programs, a follow-up survey will be conducted. The survey results will be used to determine whether and how the outreach programs need to be updated to further public understanding and willingness to adopt new habits to reduce pollutants of concern (see BMP 1.12).

4.1.4 Annual Reporting

The data collected for each BMP and measure will be compiled and summarized in annual reports. The annual report will provide a discussion of the methods to implement each BMP, progress toward achieving goals, any variances from targets, and proposed modifications to BMPS or adjustments to measurable goals.

Table 4.1

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Education Program for School Children	Provide education for children on storm water impacts	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.1	Document all youth education programs presented and number of students	X	X	X	X	X	Provide 132 presentations/year. Reach 3,000 youth. Conduct annual teacher surveys, where feasible, to evaluate and revise programs accordingly.	Creeks Division and Water Resources Division
Enrichment-Based Youth Education	Increase awareness of what constitutes proper stewardship of storm drains, creeks, and ocean water which could result in decreased pollution	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.2	Identify opportunities to develop and implement after-school educational programs including creek clean-ups and planting days	X	X	X	X	X	Document number of youth that participate in programs.	Creeks Division

Table 4.1

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Distribute Informational Brochures and Postcards	Increase awareness of what constitutes proper stewardship of storm water which could result in decreased pollution	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.3a	Distribute "The Ocean Begins on Your Street" Brochure in English	X	X	X	X	X	Document the target audience, number of brochures distributed through community events, reach 50% of intended audience.	Creeks Division
			1.3b	Distribute "The Ocean Begins on Your Street" Brochure in Spanish	X	X	X	X	X		Creeks Division
			1.3c	Distribute Clean Water Business Outreach Materials to the entire mailing list of the business group that is targeted each year	X	X	X	X	X	Year 1: Automotive Year 2: Restaurants Year 3: Mobile Washers Year 4: Mobile Washers Year 5: Hotels Document the number of brochures distributed to promote the Clean Water Business Program and in response to illegal discharge investigations. Reach 100% of intended audience.	Creeks Division
			1.3d	Develop new bilingual informational brochures to reach specific target audiences in the community.	X	X	X	X	X	Develop new informational brochures, document distribution to specific target audiences on an annual basis. Reach 100% of intended audience.	Creeks Division

Table 4.1

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Event Participation	Provide public education opportunities on storm water impacts	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.4a	Earth Day Exhibit	X	X	X	X	X	1 event.	Creeks Division
			1.4b	Creek Week	X	X	X	X	X	1 event.	Creeks Division
			1.4c	Sustainable Landscape Fair	X	X	X	X	X	1 event.	Water Resources Division
			1.4d	Other Relevant Events	X	X	X	X	X	2 additional events.	Creeks Division & Water Resources Division
Storm Drain Marking	Raise awareness that storm drains lead to creeks and/or the ocean.	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.5	Maintain and replace storm drain markers as necessary	X	X	X	X	X	Evaluate and clean 2,300 storm drain markers annually, as necessary.	Streets Operations
Stormwater Hotline/City Information Line	Promote the reporting of illicit discharges by having a system for receiving such reports	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.6a	Advertise call-in number on SWMP media and educational materials in English	X	X	X	X	X	4 information pieces through direct mail, media campaigns and/or public events to reach a minimum of 5,000 residents.	Creeks Division
			1.6b	Advertise call-in number on SWMP media and educational materials in Spanish	X	X	X	X	X	4 information pieces through direct mail, media campaigns and/or public events to reach a minimum of 5,000 residents.	Creeks Division

Table 4.1

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Neighborhood-based Outreach Program	Increase awareness of what constitutes proper creeks stewardship which could result in decreased pollution	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.7	Implement annual neighborhood outreach program with educational programming, creek clean-ups, and creek restoration activities	X	X	X	X	X	Select neighborhoods for participation, implement 2 programs annually, document number of participants.	Creeks Division
Community-Based Social Marketing	Remove barriers to behavior change, provide incentives for behavior change, and use "social norms" and expectations to reinforce good water quality habits	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.8	Assess outreach opportunities to utilize community-based social marketing stragtegies	X	X	X	X	X	Identify at least one opportunity per year for community-based marketing and report why it was or was not an appropriate strategy. If utilized, assess and report on its successes and/or failures by conducting pre and post-project behavior observations.	Creeks Division
www.sbcreeks.com	Provides community members with access to information about creek related community events, creek cleanup and enforcement activity, advisory committee meetings, and other documents	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.9	Maintain and update the Creeks Division website on a quarterly basis	X	X	X	X	X	Update web page content on a quarterly basis. Advertise website on four media pieces per year. Increase website "hits" (visitors) by 5%, annually.	Creeks Division

Table 4.1

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Clean Water Business Program	Increase awareness of water quality issues and achieve voluntary compliance with discharge regulations	Bacteria, hydrocarbons, sediments, pesticides, gross pollutants	1.10	Continue certfication of automotive service businesses and expand to include certification program for restaurants, hotels, contractors, and mobile businesses (mobile detailers, power washers, carpet cleaners)	X	X	X	X	X	Expand program with one additional business type each year. Certify at least 20 businesses annually and inspect certified businesses every 2 years for possible re-certification.	Creeks Division
Community Media Campaigns	Reach greater numbers of people to increase behaviors that promote clean creeks and healthy beaches	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.11a	Develop and air public service announcements on the radio in English	X	X	X	X	X	Reach 30,000 listeners at least 1/month.	Creeks Division
			1.11b	Develop and air public service announcements on the radio in Spanish	X	X	X	X	X	Reach 15,000 listeners at least 1/month.	Creeks Division
			1.11c	Develop and air public service announcements on television in English and Spanish	X	X	X	X	X	Reach 40,000 television watchers at least 1/month .	Creeks Division
			1.11d	Develop and publish print advertising in English	X	X	X	X	X	12 display ads.	Creeks Division
			1.11e	Develop and publish print advertising in Spanish	X	X	X	X	X	4 display ads.	Creeks Division
Conduct a Public Opinion Survey	Measure change in behavior due to education and outreach programs	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	1.12	Hire a consultant to perform the survey				X		Complete Public Opinion Survey and Implement Recommendations as appropriate.	Creeks Division

4.2 Minimum Control Measure 2: Public Involvement/Participation

The City of Santa Barbara has an extensive public involvement and participation program which provides opportunities for citizens to participate in storm water program development and implementation. The City implements a number of best management practices that foster extensive public participation and meet the requirements of the State General Permit. These include administration of a City Council appointed Citizens Advisory Committee, participation in the County of Santa Barbara Project Clean Water Stakeholders Committee, participation in the Santa Barbara County Intergovernmental Committee, conducting community forums, and sponsoring volunteer projects such as community clean-ups and water quality monitoring. The public education programs discussed in the previous section also outline a number of efforts that foster public involvement in the City's storm water management program.

The Measurable Goals and Pollutants of Concern addressed in the Public Involvement/Participation Minimum Control Measure are shown in Table 4.2.

4.2.1 Best Management Practices

1. Creeks Advisory Committee Public Meetings

In November 2000, when the City's Creeks Restoration and Water Quality Improvement Division was formally established, the City Council also established a citizen advisory committee to advise staff and City Council on matters related to the Creeks Division. The Creeks Restoration and Water Quality Improvement Program Citizens Advisory Committee consists of eleven members, of which seven are voting members with expertise in land use and environmental issues, community concerns, business interests, hotel/lodging industry and ocean user interests, and four non-voting liaisons from the City Council, Planning Commission, Park and Recreation Commission, and the County Project Clean Water Program.

The Creeks Division administers the Creeks Citizen's Advisory Committee which meets on a monthly basis. The public meetings are noticed in accordance with the Brown Act. These meetings are held in a public place and televised on the City's Public Television Station Channel 18, and are available in streaming video on the City's website. Meeting agendas are available at least 72 hours prior to the meeting. The agendas are posted in public areas, and the meeting packets are posted on the City's web site, and distributed via mail and email to interested parties (see BMP 2.1).

In addition to the Creeks Advisory Committee, proposed projects and programs related to storm water management are subject to the review and approval of the City Council. Such meetings are also noticed in accordance with the Brown Act and televised on Channel 18.

Since Spring 2003 with the issuance of the State General Permit, approximately 12 Creeks Advisory Committee meetings were held to solicit public participation and review

the General Permit requirements, draft SWMP submittals, Regional Water Quality Control Board (RWQCB) comments, and the final SWMP submittal.

The City will continue to dedicate at least one Creeks Advisory Committee meeting each year to provide the public with the opportunity to review SWMP implementation progress, BMP effectiveness, and community outreach program objectives, among other related water quality topics. Public input that is received will be incorporated into the annual report to the RWQCB. This annual meeting will be noticed in the same manner as all other Creeks Advisory Committee meetings, as described above (see BMP 2.1e).

2. Project Clean Water Stakeholders Committee Public Meetings

The City also participates in the Project Clean Water (PCW) Stakeholders Committee that is administered by the County of Santa Barbara. In order to incorporate community concerns and ideas into regional clean water objectives and projects, the Project Clean Water Stakeholders Committee was formed in 1998. The Stakeholders Committee consists of representatives of community organizations, local government agencies such as the Cities of Santa Barbara, Goleta and Carpinteria, staff from Santa Barbara City College and UCSB, and other interested individuals. All interested individuals or organization representatives are encouraged to attend quarterly meetings. Meetings feature updates on County and City storm water programs, provide guest speakers on topics related to storm water pollution, and provide an opportunity for community members to discuss any issues of concern. Attendance varies from approximately 10 to 20 people. Santa Barbara County PCW staff maintains a stakeholder email and mailing list, and those on the list are noticed of regular meetings, announcements, and other events through the email system.

Over the last six years the Project Clean Water Stakeholders Committee provided a valuable venue for public discussion of storm water issues and programs. The County of Santa Barbara is responsible for the public noticing of these meetings. The City will continue to regularly participate in Committee meetings, and solicit public input on the progress of SWMP implementation, BMP effectiveness, and education and outreach programs, among other related water quality topics (see BMP 2.2).

3. Regional Agency Coordination Meetings

Since 1998, the City has participated in intergovernmental meetings with local, state and federal agencies with interests in regional storm-water issues. The meetings occur quarterly with both regulators (such as RWQCB) and regulated entities (MS4s). Topics for discussion are suggested by participants and include development and interpretation of non-point source regulations, opportunities for cooperative efforts, emerging technology, and water quality program updates. The City's ongoing participation in the quarterly regional permit meetings will also continue to foster regional coordination.

On an annual basis, the City will continue to participate in four regional agency coordination meetings (see BMP 2.3).

4. Community Meetings and Forums

Community meetings and forums are held on an as-needed basis to discuss the direction of and to seek community input on the City's water quality improvement programs. Bilingual neighborhood meetings and workshops are also held on an as-needed basis to review and seek community input on a wide range of creek restoration and storm drain improvement projects. If these meetings are in neighborhoods with a significant Spanish-speaking population, they are often promoted with bilingual fliers and simultaneously translated into Spanish. These meetings may also be aired on television in both English and Spanish (see BMP 2.4).

The City will continue to conduct at least one community meeting each year that is focused on water quality improvement programs. The purpose of such a meeting will be to report on the progress of water quality programs and solicit public input on the progress of SWMP implementation, BMP effectiveness, and education and outreach programs, among other related water quality topics. As with all public meetings, comments that are received are considered in the development and implementation of existing and new programs. This meeting will be advertised on the City's web site, through email postings and newspaper advertisements (see BMP 2.4).

5. Community Volunteer Projects

The City sponsors creek clean-up and beautification projects in different neighborhoods at least once a year. Projects are selected based on need as well as neighborhood interest. In addition, the City has established a network of volunteers to assist in the implementation of its storm water monitoring program. The City also provides in-kind support and participates in volunteer projects implemented by other organizations such as the Surfrider Foundation, Urban Creeks Council, and Santa Barbara Channelkeeper, among others.

The City will continue to sponsor as least one volunteer creek clean-up project each year as well as provide volunteer opportunities for participating in the storm water monitoring program (see BMP 2.5).

4.2.2 Implementation of Public Involvement/Participation

The Creeks Division of the Parks and Recreation Department is responsible for implementation of the Public Involvement/Participation Minimum Control Measure. See Appendix B for an organizational chart that outlines responsible departments and key contacts.

4.2.3 Measurable Goals

Public involvement and participation is essential to the development and ongoing activities of the storm water management program, insuring that the City's program reflects community concerns and priorities to improve creek and ocean water quality. The measurable goals for public participation and involvement are outlined in detail in the Table 4.2.

4.2.4 Annual Reporting

The data collected for each BMP and measurable goals will be compiled and summarized in annual reports. They will include the number of public meetings and volunteer opportunities as well as participants, and a narrative discussion of public comments related to water quality issues. The annual report will provide a discussion of the methods to implement each BMP, progress toward achieving goals, any variances from targets, and proposed modifications to BMPs or adjustments to measurable goals.

Table 4.2

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Creeks Advisory Committee Meetings	Keep the public informed regarding community outreach efforts, creeks restoration projects and water quality issues	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	2.1a	Hold monthly public meetings to discuss creeks, water quality and community outreach	X	X	X	X	X	12 meetings	Creeks Division
			2.1b	Air meetings on the City's Channel 18 television station and streaming video on City website	X	X	X	X	X	36 airings and archive on web for one year	City TV 18
			2.1c	Post meeting agendas to the City's web site by the Friday prior to the meeting	X	X	X	X	X	12 postings	Creeks Division
			2.1d	Mail meeting agendas by the Friday prior to the meeting	X	X	X	X	X	Distribute agendas to mailing list of 250	Creeks Division
			2.1e	Dedicate at least one meeting annually to provide the public with the opportunity to review and comment on the SWMP	X	X	X	X	X	1 meeting	Creeks Division
Project Clean Water Stakeholder Committee Meeting	Provide information and seek participation in City SWMP	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	2.2	Attend quarterly meetings to provide information and seek participation from stakeholders	X	X	X	X	X	4 meetings	Creeks Division

Table 4.2

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Regional Coordination	Attend quarterly Intergovern-mental meetings to exchange information with the RWQCB, County of Santa Barbara and other local municipalities.	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	2.3	Attend quarterly public meetings to provide information and seek participation from stakeholders in the City SWMP	X	X	X	X	X	4 meetings	Creeks Division
Community Forum on Water Quality Issues	Hold a community forum on water quality to seek community input, share ideas and vision, and to establish opportunities to form stronger partnerships	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	2.4a	Hold annual public water quality forum to receive community input about water quality issues	X	X	X	X	X	1 meeting	Creeks Division
			2.4b	Air the forum on the City's Channel 18 television station in English	X	X	X	X	X	4 airings	City TV 18
			2.4c	Air the forum on the City's Channel 18 television station in Spanish	X	X	X	X	X	2 airings	City TV 18
			2.4d	Post forum flyer to the City's web site, send announcement via email, and submit to community calendars	X	X	X	X	X	4 postings	Creeks Division
			2.4e	Advertise meeting in local daily and weekly newspapers	X	X	X	X	X	Place 2 advertisements	Creeks Division

Table 4.2

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Community Volunteer Projects	Encourage citizen participation in reducing creek pollution and understanding water quality concerns	Bacteria, nutrients, hydrocarbons, sediments, pesticides, gross pollutants	2.5	Conduct at least one creek clean-up per year and solicit participation in storm monitoring program	X	X	X	X	X	20 participants in a creek clean-up and 6 volunteers for storm monitoring	Creeks Division

4.3 Minimum Control Measure 3: Illicit Discharge Detection and Elimination

The City of Santa Barbara has an existing regulatory framework as well as a number of programs for the detection and elimination of illicit discharges. These programs provide the City with a solid foundation for meeting the State General Permit requirements. The following discussion outlines these programs, including its storm drain system map, ordinances that prohibit polluted storm water discharges, the illicit discharge detection and enforcement program, methods to address non-storm water discharges that are considered potential sources of storm drain pollutants, and public information programs on the hazards associated with illegal discharges and improper waste disposal. In addition to ongoing implementation of existing programs, the City plans to review and revise existing ordinances and produce a new storm water ordinance in order to improve the regulation of illicit discharges to the storm drain system.

The Measurable Goals and Pollutants of Concern addressed in the Illicit Discharge Detection and Elimination Minimum Control Measure are shown in Table 4.3.

4.3.1 Best Management Practices

1. Storm Sewer Mapping Drain System Map

The City has a comprehensive map of the storm drain system including all drainage pipes, inlets, outfalls and other drainage structures. The storm drain system map, which is available to City staff in a digital and paper format, is updated whenever there are changes to any storm drain facilities and is used extensively for pollution source tracking (see BMP 3.1).

The City's storm drain system includes 1,798 curbside catch basins and drop inlets, 48 miles of pipe, and 1,342 storm drain outlets (storm drain outlets belong to the City, County, or CalTrans or are privately owned). Within the City, the County of Santa Barbara maintains 11.1 miles of pipe and the California Department of Transportation (CalTrans) maintains eight miles of pipe.

FEATURE TYPE	LENGTH/ NUMBER	OWNER
Pipe	47.7 miles	City of Santa Barbara
Pipe	11.1 miles	County of Santa Barbara
Pipe	8.0 miles	CalTrans
Concrete Channels	1.9 miles	City of Santa Barbara
Catch Basins/Drop Inlets	1,798	City of Santa Barbara
Storm Drain Outlets	1,342	City, County, CalTrans, Private

The map of the City's storm drain system is included in Appendix B. This information is also available in the offices of the City Public Works Department, Water Resources Division (805.564.5460).

2. Storm Water Ordinance Authority

While the City of Santa Barbara does not yet have a specific storm water ordinance, the Santa Barbara Municipal Code (SBMC) does have specific ordinances that prohibit illicit discharges to the storm drain system and provide for enforcement authority. These are found in Title Fourteen, Water and Sewers, Chapter 14.20 Prohibition of Water Waste and Chapter 14.56 Natural Watercourses and Storm Drain System, and Title Sixteen, Liquid and Industrial Waste Disposal. The following discussion provides an overview of the relevant Santa Barbara Municipal Code Titles, Chapters and Sections, and Appendix D includes the full text.

SBMC Title Fourteen, Water and Sewers, Chapter 14.20 Prohibition of Water Waste

SBMC Chapter 14.20 prohibits the waste of water and requires maintenance and repair of irrigation and plumbing systems to correct deficiencies resulting in the waste of water. The prohibition is enforced to promote water conservation as well as to prevent the discharge of potential pollutants such as fertilizer residue, pesticides, herbicides, and sediment. Potential situations include broken pipes, incorrect programming of irrigation controllers, improper adjustment of sprinklers, and neglect in the manual application of water for irrigation. A "Water Conservation Hotline" is widely publicized for use in reporting instances of water waste. The Water Resources Division is staffed with specialists whose assignments include follow-up on instances of water waste, with authority to issue a Notice of Violation if necessary.

SBMC Title Fourteen, Waters and Sewers, Chapter 14.56 Natural Watercourses and Storm Drain System

SBMC Chapter 14.56 regulates work and other activities within the creek channel. SBMC 14.56 prohibits obstruction of a watercourse; prohibits allowing garbage, debris, or rubbish to obstruct a watercourse; prohibits placement of fill material in a watercourse; and prohibits any connection to a drainage system, or any alteration to a drainage system, including stream bed alteration, or placing a pipe in the streambed without first obtaining a permit from the Public Works Department. Chapter 14.56 is enforced by the Streets Superintendent.

SBMC Title Sixteen, Liquid and Industrial Waste Disposal, Chapter 16.15 Urban Pollution Controls Non-Point Source Discharge Restrictions

SBMC Chapter 16.15 was adopted to protect the waters of the State. Chapter 16.15 prohibits the discharge of pollutants to streams, creeks and storm drains, and controls and regulates discharges to storm drains. Chapter 16.15 lists uncontaminated discharges that are generally exempt from prohibition, such as discharges from foundation drains, rising groundwater, potable water line flushing, residential car washing and street washing, including sidewalk washing. Chapter 16.15 also prohibits discharge of any water from swimming pools, spas and jacuzzis to any City drainage.

Chapter 16.15 makes any polluted discharge a Municipal Code violation. Chapter 16.15 is enforced by City Creeks Enforcement Officers using the Municipal Code Enforcement Procedures described below.

As part of this SWMP, the City will review SBMC Chapter 16.15 for consistency in achieving the storm water pollution reduction. This review will be initiated prior to preparation of a draft Storm water Ordinance in Year 2 (see Table 4.5, BMP 5.4).

3. Municipal Code Enforcement

Enforcement of existing policies and ordinances is crucial to the effort of maintaining water quality in the creeks and oceans. Title One of the SBMC contains the code enforcement provisions, both for legal actions and administrative enforcement.

SBMC Title One, Chapter 1.25 Administrative Code Enforcement Procedures

SBMC Chapter 1.25 provides for the enforcement of municipal code violations by providing for the imposition and collection of fines for code infractions. The City employs a philosophy of obtaining voluntary code compliance, but recognizes the voluntary approach may not always be effective. The schedule of fines and Administrative Procedures are established by Resolution of the City Council. Fines may be imposed only after a written warning has been issued; the warning period duration is in effect for twelve months from the warning date The fine schedule is $100 for the first violation, $200 for the second violation, and $250 for the third violation and all subsequent violations. Each day constitutes a new violation. Unpaid fines are submitted to the County Assessor for collection on the property tax bill. The City may also withhold issuance of a permit or business license if there is an unpaid fine. All illicit discharge cases that occur at a City parcel are entered into the City Permit Plan database. Permit Plan has a number of features that assist in the managing and reporting on enforcement cases, including dates of violations, inspections, warnings and fines.

When illicit discharges occur, they are frequently corrected by explaining the Municipal Code violations and the relevance of creek contamination issues. Often, pointing out the error and suggesting best management practices to be used in the future is enough to convince businesses and homeowners to cease discharging, dumping or to eliminate the illegal connection. Formal enforcement cases are initiated against all dischargers when the discharge occurs on a parcel in the City, or may otherwise be enforced using Title One of the SBMC. Violations involving vehicles, such as illegal dumping of the waste tank from a motor home, are normally enforced by the City Police Department. All formal enforcement cases, except Police cases, are entered in the City Permit Plan database, which provides the record keeping necessary to track enforcement activities as required by the City Administrative Guidelines.

Primary enforcement duties are provided by an Enforcement Officer in both City and County public agencies (further described below under Identification and Elimination of Illicit Discharges). The Enforcement Officer responds to calls received, and if

necessary, coordinates between various enforcement agencies and personnel, and ensures report follow-up (see BMP 3.2). Beginning in Year 1, the City will produce and distribute response cards to complainants (when contact information is available) that provide resolution to the complaint, City Division contact information for future or continued discharges, and a program evaluation survey (see BMP 3.2b).

As part of this SWMP, the City will review SBMC Chapter 1.25 for its efficacy in discouraging illicit discharges and determine whether a specific storm water ordinance or other regulatory mechanism could better assist in the enforcement and abatement of discharges that cause storm water pollution (see BMP 3.3).

4. Identification and Elimination of Illicit Discharge Sources

Federal regulations define an illicit discharge as "...any discharge to an MS4 that is not composed entirely of storm water..." with some exceptions. These exceptions include discharges from NPDES-permitted industrial sources and discharges from firefighting activities. Illicit discharges are considered "illicit" because MS4s are not designed to accept, process, or discharge such non-storm water wastes. It is important to note that "illicit" does not mean "illegal." Not every illicit discharge is necessarily a prohibited illegal discharge. The following list identifies some of the most common sources of illicit discharges in the City:

- Sanitary wastewater
- Effluent from septic tanks
- Broken sewer laterals
- Spills from roadway accidents
- Parking lot runoff from leaks and washing
- Irrigation runoff and landscaping maintenance

The City's existing program for the identification and elimination of illicit discharge sources is comprised of spill and complaint response, and field investigation and abatement. The procedures for the implementation of these elements are further described below.

<u>Spill and Complaint Response Procedures</u>

Spill and complaint calls can be a fruitful source for information that may lead to the detection of an illicit discharge. Calls may come in direct from the public, from other City staff such as field crews and facility managers, and from other agencies. Complaints may also be received from the Project Clean Water Hotline, 1-877-OUR-OCEAN. Calls that fall within the illicit discharge category are normally directed to a Code Enforcement Officer. The City has two Creeks Enforcement Officers; each is dedicated 50 percent to storm water code compliance. The City also has two Environmental Services Code Enforcement Officers that address solid waste related code violations. Once a call is received, the following procedures are implemented:

- Information regarding location, type of spill or discharge, date and time of complaint is logged on paper and, at a later date, electronic file.
- A field investigation is conducted to locate and confirm the discharge, and identify the source and reason for the water runoff. At this time it is determined whether it is polluted.
- If the discharge is determined to be polluted, the enforcement officer contacts the individual responsible for the discharge (if possible), and requires immediate containment/abatement and clean-up. If the individual is not known or not available, further research is conducted and contact is pursued by telephone or by mail.
- Abatement requirements may include stopping the activity, turning off the water source, removing polluted material, or other actions.
- A Notice of Violation (NOV) is issued to the discharger and/or the parcel owner. The NOV describes the violation in plain language and lists BMPs that will abate the violation. The NOV includes an abate date and a deadline to respond to the City regarding the discharge. The NOV contains a warning that fines may be issued if the violation continues, or occurs again.
- City Staff follow-up to confirm that the discharge is abated and BMPs are implemented. Follow-up could occur the same day or at a future date depending on the violation and actions required. BMPs may be required to assure ongoing compliance.
- Beginning in Year 1, the City will produce and distribute response cards to complainants that provide resolution to the complaint (when contact information is available), City Division contact information for future or continued discharges, and a program evaluation survey (see BMP 3.2b).
- Fines are issued if there is a reoccurrence of the discharge following the abate date. A new fine can be issued each day that a discharge continues, or for each reoccurrence of the discharge during the twelve month period that the warning is in effect.
- All illicit discharge calls are recorded and tracked in a database to confirm abatement and follow-up. All enforcement cases and activities related to the enforcement case are entered into the City's Permit Plan database.

Field Investigation and Abatement

In addition to responding to illicit discharge complaints, the City conducts ongoing field investigations to determine compliance and enforce City storm water ordinances. Field investigations are often initiated based on the potential for illicit discharges to occur and on reports received from the public. As a result of enforcement calls and City staff detecting illegal discharges, the City conducts, on average, 200-300 illegal discharge investigations, annually (see BMP 3.4).

Field investigations focus on residential areas, business areas, creek areas, and storm drain inlets and outfalls. They are conducted by car, bicycle, and on foot depending on the location and focus on areas with known previous problems with illicit discharges. Such areas could include creek bridges where illegal dumping may occur, business areas with a large percentage of business types (such as restaurants and automotive

service repair facilities) that may have illicit discharges, and residential and commercial areas where maintenance activities (such as building washing) may result in illicit discharges. Annual creek walks also provide opportunities for field investigations to identify illicit discharges and other activities that may impact creek water quality.

Field investigations are conducted on a daily basis and off-hour investigations (late nights and early mornings) are normally conducted once or twice a week. City code enforcement staff are trained to watch for and respond to illicit discharges whenever they are out in the field. The Creeks Division has two enforcement staff who are both dedicated to enforcement half time. So, between the two officers, water quality enforcement is covered full time. Discharges are either called in by the public or other city staff, or detected when officers are out in the field, on a daily basis. An investigation is triggered when a discharge trail or remnant is noted, such as water running down the street or a stain or debris is left from recent pollutants. The enforcement officer investigates to confirm the source of the pollutants and then proceeds with the proper enforcement actions. Enforcement actions include educating the discharger why the discharge is illegal and how to avoid the discharge in the future, and/or issuing a Notice of Violation or an Administrative Citation.

When field investigation efforts result in the identification of an illicit discharge, City staff implement the same procedures for abatement as outlined above in "Spill and Complaint Response". The City prioritizes its field investigations based on the potential for the illicit discharge to degrade water quality. More egregious discharges, such as illegal dumping, discharging large quantities of pollutants, and hazardous material discharges, take priority over smaller discharges that pose less impact, such as wash water discharges.

City/County Departments Involved in the Identification/Elimination of Illicit Discharges

The primary City Departments involved in the identification and elimination of illicit discharge sources include the Creeks Division, and the Public Works, Community Development and Fire Departments. County agencies, including County Environmental Health Services and the County Fire Department, are also involved in identifying and eliminating illicit discharges. These responsibilities are further described below.

City Creeks Division

The Creeks Division is responsible for complaint response and initiation of enforcement cases in most non-storm water discharge violations occurring in the City, and for all proactive enforcement. Staff responds to complaints regarding water quality throughout the year. Response occurs within twenty-four hours of notification. Complaints range from illegal dumping of trash and green-waste in the creeks, to the illegal disposal of liquid waste. Complaint response may require the cooperation of many agencies. Callers are not always aware of the unincorporated area boundaries, so a call referral system has been established so that calls can be efficiently redirected to the correct

agency (see the Storm Water Hotline Incoming Call Tree/Referral System in Appendix B.)

County of Santa Barbara Environmental Health Services (EHS)

Another program that abates illicit discharge violations is the EHS Community Health Program. District Specialists perform routine annual inspections and complaint investigations at all retail food facilities in the City. EHS has expanded their normal inspection techniques to include storm water management activities. Due to increased public awareness, EHS has received a greater number of complaints associated with unlawful discharges from permitted food facilities. Illegal activities include floor mat and floor wash-down discharge to storm drains. EHS responds to each complaint and takes the appropriate enforcement action.

In an effort to prevent illicit discharges from faulty septic systems, in April 1999, EHS revised Chapter 29 of the Santa Barbara County Code to include mandatory reporting of septic system servicing and inspection. This ongoing reporting system of voluntary septic system servicing reveals operational problems in existing septic systems. These systems are required to make repairs or modifications to meet minimum operational sanitary standards. Local service providers have been reporting all inspections of septic systems in the City to EHS. The City receives copies of these septic service inspection reports from EHS. The Community Development Department, Building Division, reviews the reports, and follows up when corrections to the septic system are required.

City Public Works Department, Water Resources Division

Under NPDES Permit No. CA0048143 the Water Resources Division's Wastewater Section operates the El Estero Wastewater Treatment plant and the publicly owned portion of the wastewater collection system. Wastewater staff investigates and abates sewage waste discharge from City lines. Additionally, City staff work with EHS to address sewage discharges from laterals or private property. Illegal and/or illicit discharges of sewage onto the ground surface and/or into the storm drain collection system may be the result of discharges from faulty sewer laterals, sewer mains or failing septic systems. Spills are reported to EHS.

As part of the fee resolution approved annually, the City Council has authorized a 50 percent waiver of the sewer connection fee to parcel owners who properly abandon their septic systems and connect to the sanitary sewer. Additionally, the City Municipal Code requires that parcel owners connect to the sewer when the cost to do so does not exceed $750 (SBMC 14.35.020). When parcel owners with septic systems in a County unincorporated area are adjacent to the City, the City allows connection to the sanitary sewer system upon annexation.

City staff conducts a comprehensive inspection and maintenance program for the publicly-owned portion of the wastewater collection system. City staff conducts an ongoing smoke detection program to locate breaks in sewer mains and laterals as well

as illegal connections to sanitary sewer and cross-connections from sanitary sewer to storm sewer. When a break or cross-connection is found on a private lateral, a correction notice is issued, and repairs must be completed within thirty days. If a private lateral is blocked and discharging to the street, City staff turn off the water, clean-up the spill and prohibit the use of water until the lateral is properly maintained and returned to working order. All sewer mains that cross creeks are inspected in accordance with an approved plan. For additional information regarding the City's Wastewater System and regulation thereof, please refer to NPDES permit No. CA0048143 or contact the Water Resources Division (see the organizational chart in Appendix B).

City Public Works Department, Environmental Services Division

Environmental Services staff coordinates with the City Fire Department in responding to spills of hazardous materials and also for the cleanup and proper disposal of these spills. Environmental Services staff practices specific BMP(s) to ensure hazardous waste spill response measures are implemented. Specific protocols to follow in the event of a hazmat emergency spill response in the City are clearly outlined and implemented by the Division (see BMP 3.2b). Environmental Services staff is 40-hour HAZWHOPER trained (Hazardous Waste Operations and Emergency Response Standard), which is specific training for employees who are exposed or potentially exposed to hazardous substances. Updated training occurs every two years (see BMP 3.15). The Environmental Services Division also manages the remediation of contaminated soil and groundwater, solid waste code enforcement, and Leaking Underground Fuel Tank (LUFT) removal from City owned properties. Staff also coordinates the remediation of the resulting contaminated soil and groundwater from these sites.

County of Santa Barbara Fire Department – Protection Services

The labeling and storage of hazardous material is within the jurisdiction of the County Fire Department. Businesses that use or store hazardous materials are required to maintain a safe storage area for materials such as pesticides, fertilizers and other materials to contain spills. In addition, a Hazardous Materials Business Plan must be submitted to the County Fire Department in order to detect potential hazards associated with the chemicals. The County Fire Department is responsible for inspecting businesses that use hazardous material to monitor their compliance with hazardous materials best management practices and spill response.

City Fire Department – Response

The City Fire Department First Responders and Hazardous Materials Response Team (HAZMAT Team) respond to spills of hazardous materials resulting from traffic accidents, leaking tanks, and any discharge that appears to be hazardous, based on color, odor, or if the material that has been spilled has been identified as being a hazardous material. With public health and safety as the foremost consideration, the Hazmat Team places emphasis on identification, containment and cleanup in an

environmentally sensitive manner. The City Creeks enforcement officers often coordinate with the Fire Department and Environmental Services if an illicit discharge or spill needs containment or remediation that Creeks staff is unable to provide.

5. Identification of Public and Private Facilities that could discharge to the Storm Drain System

The City of Santa Barbara has identified the type of public and private facilities that could discharge to the storm drain system.

Public Facilities

The City owns and operates a large number of facilities that may discharge to the storm drain system. These facilities include streets, storm drains, the water distribution system and the sewer collection system. City facilities also include a large number of buildings, parks and parking lots. All of these facilities may discharge to the City storm drain, and therefore may be considered potential pollutant sources. City facilities are addressed under MCM 6, Municipal Operations/Good Housekeeping.

Private Facilities

Private facilities that may discharge to the City Storm Drain have been classified by staff on the basis of potential for polluted discharge. Business types and uses that have the potential to discharge pollutants to the storm drain system include: Restaurants (bacteria, food oils and grease, detergents and cleaning solvents), automobile repair facilities (metal, oil and grease, coolant and solvents), parking lots (metals, oil and grease, coolant and bacteria), construction sites (sediment, concrete, building debris) and commercial and industrial facilities. Private facilities are addressed through the City's complaint response and field investigation and abatement procedures (see BMP 3.5).

Parking lots within the City are both public and private facilities that could be a source of illicit discharges. To develop baseline information, the City recently completed an inventory of all public and private parking lots within the city limits that have 25 parking spaces or are 10,000 square feet or greater in size (see BMP 3.10). By the beginning of year two of the permit term, the City will develop a monitoring program that systematically identifies parking lots with potential discharges and applicable BMPs to reduce pollutants (see BMP 3.11). BMPs could include drop inlet inserts, an increase in permeable surfaces or other Low Impact Development (LID) designs, washing with collection systems, and/or discharge to sanitary sewer. These retrofits will be tracked and reported as part of the measurable goal for BMP 3.11.

6. Non-Storm Water Discharges or Flows

Non-storm water discharges or flows (i.e. authorized non-storm water discharges) that are identified as significant contributors of pollutants are addressed with BMPs

developed through the City's Enforcement Program. The following discussion demonstrates how the City currently manages non-storm water discharges, and how the City plans to manage water line flushing and potable water discharges.

Water Line Flushing and Potable Water Discharge

Periodic planned discharges from the City's water distribution system are required as a normal part of operations and maintenance. Discharges include annual draining and flushing of the distribution system, start-up and backwashing of municipal water production wells, and fire hydrant testing. Pollutants of concern include chlorine residual, potential sedimentation from erosion, and oxygen demanding substances. A number of best management practices have been implemented to reduce the potential discharge of pollutants. These include:

- Service trucks are equipped with de-chlorination compounds and devices for use at well sites during start-up operations. Well facilities are fitted with de-chlorination basins to allow mixing of de-chlorination compounds with discharge water prior to discharge. Discharges are de-chlorinated to meet the requirements of Order No. 01-109.
- Wells used for injection will have larger catch basins designed for settling of sediments associated with injection back-flushing operations.
- Ascorbic acid, or similar EPA approved de-chlorination compounds, are used to prevent the depletion of oxygen in receiving waters.
- New well construction activities (e.g. drilling, well development, and test pumping) include strict compliance with Order No. 01-109 requirements as a part of contract specifications.
- Discharges associated with distribution system flushing and fire hydrant testing are de-chlorinated using EPA approved compounds (e.g. ascorbic acid).
- Vacuuming and/or trucking of contaminated water and material generated as a part of reservoir cleaning operations is used as necessary to prevent discharge of bacteria to creeks.

The City will file a Notice of Intent to discharge water from the distribution system pursuant to the RWQCB's General NPDES Permit for Discharges with Low Threat to Water Quality (Order No. R3-2006-0063). Upon completion of construction and testing activities associated with two new wells, two existing Order No. R3-2006-0063 Notices of Intent will be terminated and operations at the two new wells will be included under the new ongoing Notice of Intent for the entire distribution system (see BMP 3.6).

Irrigation Water/Landscape Irrigation/Lawn Watering

Landscape and irrigation discharges for City facilities are discussed under Minimum Control Measure 6, Municipal Operations. The City responds to discharges from landscape irrigation runoff from private property. Irrigation runoff is visually evaluated for evidence of sediment discharge, foamy water, discolored water, and for algal growth in the drainage course. Also, the irrigated area is inspected for indications of over-

watering, such as water-logged soil, turf areas that are saturated to a depth greater than six inches, etc. Where a site investigation confirms that the runoff is polluted the City proceeds with enforcement. If the runoff is due to over-watering, the call is forwarded to City Water Conservation Program staff so they can offer a free irrigation system evaluation to the discharger. Water Conservation enforces SBMC Chapter 14.20, Prohibition of Water Waste.

Springs and Rising Ground Water, Uncontaminated Groundwater Infiltration to Separate Storm Sewers

Springs and rising groundwater occur throughout the City. The water from these sources is considered uncontaminated if it has not been identified as contaminated. Contaminated groundwater has been identified and remediated in locations where there have been reasons to suspect contamination, including locations where there have been dry cleaning operations and leaking underground storage tanks. New sources of contamination are sometimes discovered during excavation that occurs in new development and redevelopment. When a contaminated site is discovered, the City implements procedures to remediate the site and to bring the site into compliance with regulations. The City Environmental Services Section is responsible for contaminated groundwater cleanup and contaminated soil cleanup.

Water from Crawl Space Pumps, Footing Drains, Foundation Drains

Water that is pumped from beneath buildings may become contaminated by contact with sewage, oil and grease, and other contaminants common to building basements and basement parking garages. Sumps that collect water can become fouled through the introduction of organic materials, food waste from trash areas, sewage or chemicals. Illicit discharges that occur from underneath buildings are typically abated by requiring a cleanup of the system, which may include vacuuming the sump or crawl space, and hydro-jetting drain lines with full vacuum recovery. The building and connected drains are inspected to locate sources, and video inspection of the building plumbing may be required if there is a possibility of an illegal connection. Enforcement measures, including a Notice of Violation (NOV) or Correction Notice, may be issued to assure proper cleanup and abatement of the polluted discharge.

Individual Residential Car Washing

Residential car washing wastewater can be polluted with sediments, oil and grease, and nutrients contained in the cleaning product. Residential car washing is not prohibited by City, State or Federal law, but because it has been identified as a potential source of pollutants, the City uses a mix of education and enforcement to encourage the use of BMPs, such as washing a car at the car wash, where wash water is discharged to the sanitary sewer. Residential car washing has been targeted in City education and outreach materials, including media advertising that illustrates the affects of car wash wastewater on the environment. Where there is a direct discharge to a creek or water body, or a discharge containing chemical solvents or significant oil and grease or other

pollutants of concern, the City will respond and provide information, and will use enforcement measures if the discharge contains contaminates prohibited by Title 16.

Uncontaminated Pumped Groundwater

Groundwater may be pumped from construction sites during excavation. The City does not permit the pumping of uncontaminated groundwater with discharge to the City storm drain unless the discharger has a valid NPDES Permit for the discharge. In some instances the City Waste Water Treatment Plant may permit pumping uncontaminated groundwater into the sanitary sewer collection system.

Dechlorinated Swimming Pool Discharges

Adopted in 1999, Chapter 16.15 prohibits the discharge of swimming pool water to the City storm drain system. Swimming pools built prior to 1999 were designed to discharge to the storm drain. Compliance with the new regulation is normally achieved by discharging the pool water to a sanitary sewer connection. This can usually be achieved by pumping the water into a sanitary cleanout or other sanitary connection. There are approximately 50 swimming pools on parcels that are not connected to sanitary sewer. In such cases it is City policy to permit the discharge if it is de-chlorinated, and if suitable BMPs are used to prevent erosion and sediment discharge. The City's efforts to connect parcels on septic to the sanitary sewer system are described previously.

The City operates four public pools of which two (Oak Park and Ortega Park) are connected to the sanitary sewer system. The City set aside capital funds in the Fiscal Year 2006 Budget to connect the Los Baños Pool and adjacent wading pool to the sanitary sewer system. This will be complete in Year 1 of the permit.

Diverted Stream Flows

The City does not allow under-grounding or altering of stream flows without a permit. Where it is necessary to divert stream flows, the City requires that appropriate BMPs be used. This would normally be addressed through the City permitting and plan review process, which requires that the permittee adhere to the City Erosion Control and Sedimentation Policy. Under Chapter 14.56, City has the authority to issue a Public Works Permit for work within a watercourse. The City also requires proof of permits from other authorities including the United States Army Corps of Engineers, the California Department of Fish and Game and the Regional Water Quality Control Board. Where illegal grading or streambed alteration is found, the City will issue a stop work order and notify all relevant permitting authorities.

Municipal Sidewalk Washing

City ordinance classifies the washing of streets and sidewalks as a discharge exempt from prohibition if uncontaminated. The lower State Street sidewalks in the downtown

commercial area are washed on a regular basis by the Santa Barbara Downtown Organization under contract to the City. The washing is necessary for public health and safety due to the heavy pedestrian traffic in the area, the large number of restaurants and bars, and the popularity of outdoor dining on the sidewalks of State Street.

In August 2007, the City purchased and implemented the use of a mobile wash water collection machine. The machine power washes with an average flow of 2¼ gallons per minute, and the wash water is collected from the street gutter before it enters the storm drain, then is recycled, and reused. Some excess wash water is sent to planter areas.

In addition to the mobile wash water collection machine, the Santa Barbara Downtown Organization currently uses the following additional BMPs to avoid polluted runoff from sidewalk washing:

- Litter is swept and picked up before washing an area
- Cleaning is done with heat only--no soap or cleaning product is used
- Spot cleaning is done with environmentally friendly cleaning products, such as a citrus based degreaser

Flows from Riparian Habitats and Wetlands

Contaminants may be introduced into a wetland by human activities. The City utilizes a number of BMPs to protect wetland areas, such as restricting access, prohibiting activities that may be harmful to the habitat area, and removing trash and debris from these areas. Flows from riparian habitats and wetlands can become contaminated if they come into contact with soil that contains contaminants. Where contaminated soil is found in a wetland or riparian habitat area, BMPs are used to prevent contact with surface flows.

Air Conditioning (AC) Condensate

AC condensate discharge is fairly prevalent in the highly urbanized areas of the city. The City enforces and eliminates any discharge of AC condensate that is contaminated. Where the discharge is a nuisance, efforts are made to direct the discharge to a sanitary connection. This is not always feasible in older buildings.

7. Illegal Discharge Training and Public Outreach

To successfully detect and eliminate illicit discharges, the City needs the assistance and cooperation of a large body of people who are able to recognize potential illicit discharges, know where to report the discharges, and are willing to eliminate discharges in their own homes and businesses. The City has developed and implemented a number of strategies to involve City employees, businesses and residents in the detection and elimination of illicit discharges.

City of Santa Barbara Employee Training

City operations staff performs an almost unlimited number of construction, maintenance and sanitation tasks that can result in illicit discharges. Also, most City field staff spend their time working outside at locations all over the city. Providing training for City employees is an essential component of eliminating illicit discharges from City operations, and the trained staff can be a valuable resource for reporting illicit discharges from both public and private sources.

The City provides at least one annual training session of one hour in length to all City Operations Divisions employees that perform activities that are covered by this permit. The Operations Divisions that receive training include: Public Works Department, Streets Program, Parking Operations Program, Water Resources Division, and Facilities Division; Parks Operations Division and Golf Course; and, Fire Operations.

The training consists of information about the environmental and health impacts of polluted discharges to city creeks and beaches and the regulatory requirements of the NPDES Phase II permit. A variety of illicit discharges are illustrated, usually in a Power Point or video format, as well as use of the appropriate BMPs. The discussions are targeted to each work group's normal activities. All employees that use the City Annex Yard are targeted, and training sessions have been held at the Annex Yard to familiarize employees with the purpose and intended use of the BMPs at that facility. Employees are trained on how to report illicit discharges, where to get information for proper disposal of hazardous wastes, and receive a general overview of various staff roles involved in the elimination of illicit discharges. For more information about employee training, please see the discussion under Minimum Control Measure 6: Municipal Operations/Good Housekeeping.

Business Outreach

The City Creeks Division initiated a Business Certification Program with the objective of increasing awareness of water quality issues and achieving voluntary compliance with discharge regulations (see the discussion under Minimum Control Measure 1: Public Information and Outreach and BMP 1.9). The program initially is targeting automotive repair businesses and restaurants, and was developed with the participation of the Automotive Service Council. Businesses are offered the opportunity to receive recognition and certification as clean businesses if they will participate in the program. Certification involves inspection of the facility for potential polluted discharges (see Appendix C for examples of the inspection checklists that are used). If the business meets the requirements, then it is recognized with a certificate that is signed by the Mayor, a window sticker and a newspaper advertisement. The goal is to certify 20 businesses annually. As discussed in MCM 1, the program will be expanded annually to include other business sectors in the City. The certification process includes the following steps:

- Inspect targeted businesses for clean business certification

- List deficiencies identified during inspection and explain their significance
- List illicit discharges when they exist
- List recommended BMPs to correct deficiencies
- Re-inspect after deficiencies have been corrected
- All businesses that pass inspection with all non-structural BMPs in place, and no illicit discharges, are certified as a clean business
- These businesses are then re-inspected every other year to ensure ongoing compliance

Resident Outreach

The City responds to complaints concerning discharges from private residential properties. Complaints may be for auto oil leaks on a public street, washing cars with direct discharge to a creek, material dumped in a creek or placed at the edge of creek bank, animal feces near a creek or drainage, or washing painting equipment into a storm drain. The usual response to residential issues is to inform the resident/owner of the concern and to provide the appropriate information. The City has produced, jointly with the County of Santa Barbara, a variety of topical handouts for homeowners that discuss general creek issues, and some that target specific topics such as animal waste disposal. (See the discussion under Minimum Control Measure 1: Public Information and Outreach and BMPs 1.3 and 1.6.) Where there is a history of chronic discharges, enforcement, including issuance of a Notice of Violation or Correction Notice, and sometimes fines, are used to gain compliance with the Municipal Code.

4.3.2 Implementation of Illicit Discharge Detection and Elimination Minimum Control Measures

Implementation of the proposed illicit discharge detection and elimination minimum control measures is primarily the responsibility of the Public Works Department, Fire Department and Creeks Division. See Appendix B for an organizational chart that outlines responsible departments and key contacts.

4.3.3 Measurable Goals

The measurable goals for best management practices have been selected to ensure that illicit discharges are detected, eliminated and prevented throughout the five-year permit period. The BMPs and measurable goals are included in Table 4.3. The City maintains extensive records on enforcement activities and resolution to illicit discharges. These records are reviewed to determine trends, develop improved public information, and ensure cooperation and collaboration among City departments and other agencies.

4.3.4 Annual Reporting

The data collected for each BMP will be compiled and summarized in annual reports. This data will include business inspections, enforcement actions, compliance with notice of violations, and progress on the review and revision of ordinances, among others as

outlined in Table 4.3. The annual report will provide a discussion of the methods to implement each BMP, progress toward achieving goals, any variances from targets, and proposed modifications to BMPs or adjustments to measurable goals.

Table 4.3

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Storm Sewer System Mapping	Identify drainage pipes, inlets, outfalls, and other drainage structures to aid in identifying, tracking, and elminating illicit discharges	Bacteria, nutrients, hydrocarbons, sediments, metals, chlorine	3.1	Maintain and update storm sewer system map via GIS	X	X	X	X	X	Update map regularly to reflect any drainage retrofits or alterations	Water Resources Division (Information Systems)
Municipal Code Enforcement; Document and respond to complaints of illicit discharge and other relevant enforcement issues	Reduce illicit discharge occurrences due to increased enforcement and education	Bacteria, nutrients, hydrocarbons	3.2a	Maintain database of incoming complaints and enforcement cases that staff identify	X	X	X	X	X	100% call response within 24 hours	Creeks Division
		Bacteria, nutrients, hydrocarbons	3.2b	Produce and distribute response cards for complainants and include program evaluation survey on cards	X	X	X	X	X	Produce response cards in Year 1 and supply response cards to complainants when contact info is available. Review evaluation surveys quarterly and incorporate suggestions as appropriate.	Creeks Division
		Bacteria, nutrients, hydrocarbons	3.2c	Abate illicit discharges through education and outreach, patrols, call response, Notices of Violations, and Citations	X	X	X	X	X	Pursue appropriate enforcement and resolution or abatement of 100% of identified illicit discharges.	Creeks Division, Environmental Services and Public Works

Table 4.3

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Complete review and revision of ordinances that regulate illicit discharges	Improve enforcement and compliance	Bacteria, nutrients, hydrocarbons, sediments	3.3a	Evaluate current ordinances to determine need to update		X				Complete ordinance audit by end of year two of permit.	Creeks Division
		Bacteria, nutrients, hydrocarbons, sediments	3.3b	Hold public workshops and hearings		X	X			4 meetings	Creeks Division
		Bacteria, nutrients, hydrocarbons, sediments	3.3c	Ordinance adoption			X			Implement and enforce new ordinance	Creeks Division
Field Investigation and Abatement	To enforce and determine compliance with storm water requirements.	Bacteria, nutrients, petrolem hydrocarbons, metals, sediments	3.4	Conduct field investigations and follow up with abatement procedures	X	X	X	X	X	A minimum of one enforcement staff on duty 100% of the time, and a minimum of 100 field investigations conducted annually.	Creeks Division
Inventory of businesses and industries to be monitored for illicit connections and /or discharges	Reduce pollution from illicit connections and/or discharges.	Bacteria, nutrients, hydrocarbons, sediments	3.5	Create inventory of all Attachment 4 listed businesses and industries to be monitored for potential illicit connections and/or discharges		X				Complete inventory by end of year two of permit.	Creeks Division
File a Notice of Intent to discharge water from the water distribution system pursuant to the RWQCB's General NPDES Permit for Discharges with Low Threat to Water Quality (Order No. R3-2006-0063)	Reduce potential for polluted non-storm water discharges	Chlorine	3.6	File the Notice of Intent and maintain appropriate records	X	X	X	X	X	Date NOI is filed.	Water Resources Division

Table 4.3

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Document responses to septic system pumper inspection reports and identify deficiencies	Reduce potential for pollution from failing septic systems	Bacteria	3.7	Create and maintain database of inspection reports and enforcement responses	X	X	X	X	X	100% follow-up on problem septic systems; 100% resolution on septic system failures	Building and Safety Division
Inventory commercial facilities 100,000 square feet or greater	Identify potential pollutant sources	Bacteria, nutrients, petroleum hydrocarbons	3.8	Identify and locate using GIS technology		X				Complete inventory by end of permit year two.	Creeks Division
Inspect commercial facilities 100,000 square feet or greater	Reduce pollution from illegal disposal activities	Bacteria, nutrients, hydrocarbons, metals	3.9	In conjunction with the business outreach program			X	X	X	Inspect 5 commercial facilities annually (or 100% - whichever comes first)	Creeks Division
Inventory parking lots of 10,000 square feet or greater (or space for 25 or more cars)	Identify potential pollutant sources	Bacteria, nutrients, petroleum hydrocarbons	3.10	Identify and locate using GIS technology	X					Complete inventory by end of permit year two.	Creeks Division
Monitor maintenance of and BMP application to parking lots of 10,000 square feet or greater (or space for 25 or more cars)	Reduce pollutant discharge	Bacteria, nutrients, hydrocarbons	3.11	Work in conjunction with existing enforcement programs, Business Certification Program, & permit applications to monitor, apply and maintain appropriate BMPs		X	X	X	X	Send information to all 500 parking lot parcel owners in permit year two regarding BMP application and follow up with monitoring in permit years three, four, and five.	Creeks Division, Planning, Building and Safety
Complete a study of BMPs for washing sidewalks	Reduce pollution from non-storm water discharges	Bacteria, nutrients	3.12	Contact Coastal Communities, Survey BMPs and Identify costs and other issues	X					Complete in Year 1	Creeks Division

Table 4.3

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Implement selected sidewalk washing BMPs	Reduce pollution	Bacteria, nutrients	3.13	Identify needs and propose budget	X	X	X	X	X	Complete in Year 2	Creeks Division, Parks Division
Connect City swimming pool to sanitary sewer	Reduce potential pollutants from non-storm water discharges	Chlorine	3.14	Develop design, make infrastructure drainages to provide pipe connection		X				Complete in Year 1	Facilities Division
Illegal Discharge Training (for illegal discharge outreach BMPs see Table 4.1)	Involve City employees, businesses and residents in the detection and elimination of illicit discharges	Bacteria, nutrients, hydrocarbons, metals, sediments	3.15	Provide annual training to all City employees that perform activities that are covered by this permit	X	X	X	X	X	Provide at least one annual training session of one hour in length to Public Works Department, Streets Program, Parking Operations Program, Water Resources Division, Facilities Division, Parks Operations Division, Golf Course, and, Fire Operations	Creeks Division

4.4 Minimum Control Measure 4: Construction Site Storm Water Runoff Control

The City of Santa Barbara has an established Construction Site Storm Water Runoff Control Program that includes requirements for construction site operators to control waste and implement erosion and sediment control best management practices, as well as procedures for site plan review, site inspection and enforcement, and the receipt of public information. The City uses a number of regulatory mechanisms to implement and enforce the use and efficacy of construction site storm water best management practices. These include the Erosion and Sediment Control Policy, approved for implementation in July 2003, Chapter 22.10, Vegetation Removal of the SBMC Title Twenty-two Environmental Policy and Construction, the Uniform Plumbing Code (Chapter 11, Storm Drainage), and California Building Code (Appendix Chapter 33). The City's Building Code was recently amended in January 2008 to reflect California Building Code updates. Therefore, the Santa Barbara Municipal Code (SBMC) now includes specific erosion and sedimentation regulation for NPDES compliance (Section J111 of SBMC Chapter 22.04).

The Measurable Goals and Pollutants of Concern addressed in the Construction Site Storm Water Runoff Control Minimum Control Measure are shown in Table 4.4.

4.4.1 Best Management Practices

The following discussion outlines how the City meets the requirements of the State General Permit for construction site storm water runoff control best management practices. In addition to ongoing implementation of its construction site storm water runoff control program, the City will identify and implement the appropriate mechanisms to ensure that there are clear regulatory requirements for standard erosion control measures and detailed erosion control plans for new development or redevelopment projects that are subject to such requirements.

1. Regulatory Mechanisms for Erosion and Sediment Control

<u>SBMC Chapter 22.04, Section J111, NPDES Compliance</u>

City erosion and sedimentation control requirements are authorized in SBMC Chapter 22.04 (Uniform Construction/Technical Codes Related to Construction), Section J. This section of the City's municipal code contains erosion and sedimentation control plan requirements, NPDES compliance language, and the results for noncompliance. Failing to install BMPs required by Section J111 authorizes the City building official to force the installation of the drainage, erosion control, and/or other devices shown on the approved plans and/or collect penalties. The effectiveness of this ordinance will be assessed (see BMP 4.2) and revised if appropriate to ensure compliance.

Erosion/Sediment Control Policy

In 2003, the City completed a study that identified a range of erosion control measures including the types of BMPs, methods for application, design and installation (relative to project size, location, and other considerations), and inspection and approval requirements. As a result of this study, the Building and Safety Division of the Community Development Department developed and began to implement the *Erosion/Sediment Control Policy* in July 2003. The *Erosion/Sediment Control Policy* establishes requirements for construction site operators to implement appropriate erosion and sediment control best management practices. The policy requires either standard or detailed erosion control plans depending on the size, location, and extent of the proposed construction project. The effectiveness of this policy will be assessed (see BMP 4.1) to identify any need to strengthen compliance and/or enforcement.

The following discussion provides an overview of the policy requirements. The full text of the policy is included in Appendix F.

Standard Erosion Control Measures are required on projects where the soil disturbance **is less than one acre and on a slope less than 15 percent and the property is not immediately adjacent to a critical area (such as a creek)**. These standard measures are outlined in the policy manual and include installation instructions and maintenance requirements. They include measures such as:

- gravel construction entrances
- catch basin protection
- sediment filters/barriers/ straw wattles
- silt fences
- plastic sheeting
- use of existing vegetation and re-vegetation
- slope protection
- wet weather measures
- seeding
- methods to remove protection measures

Detailed erosion control plans are required on **projects that have slopes greater than 15 percent, are adjacent to a critical area (such as a creek), or the disturbed soil area is greater than 1 acre**. The detailed erosion control plan must be designed by a licensed or certified Professional Soil Erosion and Sediment Control Specialist, a California licensed Civil Engineer, Landscape Architect, Registered Geologist or a licensed Architect and include appropriate BMPs. All BMPs must be in place and functional before any other building inspection can occur; therefore inherently making the larger and/or sloped sites a priority for City inspectors (see BMP 4.4). Applicants and landowners are directed to use BMPs outlined in three reference manuals, including the Association of Bay Area Governments *Manual of Standards for Erosion and Sediment Control*, the *Erosion and Sediment Field Control Manual*, and the

California Storm Water Quality Association's Best Management Practices Handbook (CASQA BMP Handbook).

2. Requirements for Construction Site Operators

Erosion and sediment control BMPs and other good housekeeping practices are required of construction site operators on all permitted projects. Both the Public Works Department's *Procedures for the Control of Runoff into Storm Drains and Watercourses* and the Building Division's *Erosion/Sedimentation Control Policy* were developed as specifications containing BMP requirements for general construction work. These two documents outline required sediment control BMPs, such as drain inlet protection and stabilized construction entrances and exits. These policies also outline the requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

Implementation of BMPs listed in these manuals is required on all Public Works and Building-issued construction permits, and a copy is included with every permit. Use of these two manuals is also required on all discretionary review projects. This requirement is communicated to all permit applicants as a standard condition of project approval. These standards are enforced on all projects with discharge to City drainage.

The Public Work Department's *Procedures for the Control of Runoff into Storm Drains and Watercourses* and the Building Division's *Erosion and Sediment Control Policy* are included in Attachment F.

3. Procedures for Site Plan Review

The City of Santa Barbara requires and reviews an Erosion/Sedimentation Control Plan for all construction applications that are submitted for permits. This review process is ongoing. During Site Plan Review, the City uses the following procedures to determine the extent of sediment and erosion control measures necessary.

- At the time of project application, site plans for all projects submitted for building or public works permits are evaluated by the Building and Safety Division of the Community Development Department or the Public Works Department.
- If the project application does not include appropriate sediment and erosion control measures, City staff requires applicants to demonstrate the intended use of such measures on the site plans prior to permit issuance.
- If the project requires review and approval by a discretionary review body (such as the Architectural Board of Review or the Planning Commission), prior to submitting for a building permit, City staff require applicants to demonstrate specific measures on the site plans and recommend conditions of approval that bind project applicants to the implementation of the sediment and erosion control measures.

- After discretionary review approval and during the building permit plan review process, (prior to issuance of a Building or Public Works Permit), City staff reviews the final project plans to ensure that the required sediment and erosion control measures are shown on the site plans.
- A Waste Discharge Identification number (WDID) is required for projects that propose ground disturbance over one acre or greater. By requiring an applicant's WDID number, the City verifies that project proponents have coverage under the statewide General Permit for Storm water Discharges Associated with Construction Activity and have produced a Storm Water Pollution Prevention Plan.

4. Procedures for Receipt/Consideration of Information Submitted by the Public

The City of Santa Barbara has a number of mechanisms by which to receive and consider information submitted by the public related to land development projects, policy development initiatives, and illicit discharges of sediment from construction projects.

Land Development Projects.

Public hearings for land development projects are held if review and approval is required by a discretionary review body such as the Planning Commission or Architectural Board of Review, among others. Notices for these meetings are governed by the Brown Act. The City municipal code also requires notification of landowners within 450 feet of a proposed development project that a public hearing is being held by a discretionary review body, such as the Planning Commission or Architectural Board of Review. In addition, depending on project location and the nature of the proposed development, other City commissions and committees, such as the Historic Landmarks Commission, Harbor Commission and Park and Recreation Commission may review projects. The public is similarly notified through mailed notices and posted agendas. Agendas and notices are posted to the City's website and members of the public can also request to be placed on a notification list for a specific project.

Policy or Other Regulatory Development Initiatives

Public hearings provide the primary method by which the City receives and considers information regarding the development and implementation of new policy initiatives. The City Council first conducts a hearing to initiate the staff effort to evaluate proposed policy alternatives. If a new ordinance is proposed, or an ordinance is being amended, the City Council Ordinance Committee conducts public meetings to discuss the proposed ordinance language.

Reporting of Illicit Discharges from Construction Sites

As discussed in MCM 3, Illicit Discharge Detection and Elimination, the City receives and considers public information related to potential or actual illicit discharges from

construction sites. These include the information and enforcement telephone numbers (1-800-Our OCEAN, Creeks Division – 897-2658, Creeks Enforcement Officer – 897-2688, Code and Zoning Enforcement – 897-2676) - where the public can either leave a message or speak to a staff person. The public also uses email to report illicit discharges which often includes photo documentation. The City uses the same procedures as outlined in MCM 3 to respond to public concerns.

5. Inspection and Enforcement of Erosion and Sediment Control BMPs

City Building Inspection staff inspects the installation of erosion/sediment controls on private property, and City Public Works Inspection staff inspects the installation of erosion/sediment controls on publicly owned property. Depending on the type of erosion control plan (either standard or detailed), the City implements the following procedures for the inspection and enforcement of Erosion and Sediment Control BMPs (see BMP 4.3).

Inspection

Erosion/sediment control BMPs are designed by the project engineer and included on the site's Erosion Control Plan. Each project's BMPs are unique and specified for project site conditions. City Building inspectors use the approved set of plans as their project-specific checklists for proper erosion control BMP implementation. Inspectors use the CASQA BMP Handbook (Section 3, Erosion and Sediment Control BMP Fact Sheets provided in Appendix F) as their main reference guide for proper implementation and maintenance of the erosion and sediment control BMPs. Each site's erosion control BMPs are inspected throughout the course of the construction project, and the mandated BMPs are required to be installed prior to grading or foundation inspections. City Building Inspectors work diligently with developers to ensure that the BMPs are installed correctly and are being used effectively. Erosion control inspections are conducted on all sites with any ground disturbance, and most sites receive multiple inspections (especially larger sites with detailed erosion control plans) (see BMP 4.4). City staff inspectors frequent their assigned construction sites anywhere from ten to twenty times throughout the course of a project to ensure adequate compliance with all City Building Department permit requirements. City inspectors include inspection of the installed BMPs any time they are on a construction site. The following procedures provide the minimum guidelines for the inspection of erosion and sediment control measures.

- For projects that have **Standard Erosion Control Plans** (see parameters above and in Appendix F), City staff will inspect construction sites a minimum of three times each year a project is under construction to determine compliance with the following requirements:
    - Erosion control materials to be onsite by October 1
    - Erosion control measures to be installed by Oct. 15
    - Re-vegetation to be established by Oct. 15

- Additional inspections will be made during the course of the construction project to ensure proper installation and adequate maintenance of the installed BMP's and to verify that the BMP's are appropriate for any changes to the project or field conditions.

- For projects that have **Detailed Erosion Control Plans** (see parameters above and in Appendix F), City staff will inspect construction sites a minimum of three times each year a project is under construction to determine compliance with the following requirements:
  - Pre-Winter Inspection, before Oct. 15 to verify measures are in place
  - Interim Inspection (during construction) to ensure on-going maintenance and repair of erosion control measures
  - Final Inspection to verify permanent measures have been installed and temporary measures have been removed (includes planting and re-vegetation)
  - Additional inspections will be made during the course of the construction project to ensure proper installation and adequate maintenance of the installed BMP's and to verify that the BMP's are appropriate for any changes to the project or field conditions.

<u>Enforcement</u>

The City takes a number of steps to enforce its Erosion/Sediment Control Policy, Santa Barbara Municipal Code regulations, and other development standards. The use of each step depends on the seriousness of the violation (that is, the extent to which it has the potential to result in polluted discharges), and whether the construction site operator has previously received a verbal or written correction notice (see BMP 4.5).

These steps include the following:

- If during a scheduled construction site inspection, City Inspectors determine that erosion control measures are required and have not been installed, the construction site operator is verbally directed to install the measures within a certain period of time (1-3 days, depending on the season – 1 day if wet and up to 3 if dry).
- If during a scheduled inspection, City inspectors determine that the erosion control measures are installed incorrectly, a written Warning / Correction Notice is issued with a deadline for correction time (1-3 days, depending on the season – 1 day if wet and up to 3 if dry).
- Issuing a written warning or correction notice instigates an enforcement case, tracked in the City's "Tidemark Advantage" database as a prelude to the imposing of stipulated fines. The site's contractor, developer, grading engineer, and any other associated personnel are listed, tracked, and reported to other City staff.

- When City inspectors return to the construction site to confirm that the measures are in place and the correction notice has been ignored, a stop work order is issued and enforced until the corrections have been made.

City erosion and sediment control requirements are authorized in **SBMC Chapter 22.04 Uniform Construction/Technical Codes Related to Construction, Section J,** which contains erosion and sedimentation control plan requirements and NPDES compliance language. Also, **Chapter 22.10, Vegetation Removal** contains erosion control, slope stabilization and grading requirements, and applies to the Hillside Design District (see Appendix D for the specific municipal code language). The City also uses the **Uniform Plumbing Code** (Chapter 11, Storm Drainage) and **California Building Code** (Appendix Chapter 33) to aid in the enforcement of erosion control requirements.

In addition to City municipal codes that regulate land development, the City establishes its enforcement authority through the adoption of the California Building Code (CBC), Section 104.2.4 by Ordinance 5256 (October 2002). The CBC states that:

"Whenever any work is being done contrary to the provisions of this code, or other pertinent laws or ordinances implemented through the enforcement of this code, the building official *may order the work stopped* by notice in writing served on any persons engaged in the doing or causing such work to be done, and any such persons shall forthwith stop such work until authorized by the building official to proceed with the work."

4.4.2 Implementation of Construction Site Storm Water Runoff Control Minimum Control Measures

Implementation of the construction site storm water runoff minimum control measures will be undertaken by the Public Works Department and Community Development Department. See Appendix B for an organizational chart that outlines responsible departments and key contacts.

Violators of the Erosion/Sediment Control Policy and/or other municipal or state codes are tracked in the City's existing "Tidemark Advantage" database used for tracking proposed projects and enforcement cases. Enforcement cases are instigated as a prelude to imposing stipulated fines (fines are detailed in Section J111.4 of SBMC Chapter 22.04. The contractor, developer, grading engineer and any other associated personnel are listed in the enforcement case.

4.4.3 Measurable Goals

As shown in Table 4.4, a number of measurable goals will be used to check progress each year as well as demonstrate the efforts made to reduce pollutants to the maximum extent practicable. The intent is to provide an opportunity to assess and evaluate the program and provide feedback mechanisms to measure and update the program as

appropriate. In addition to monitoring and enforcing implementation of the Erosion and Sediment Control Policy, the City will identify and implement the appropriate mechanism to ensure that there are clear regulatory requirements for standard erosion control measures and detailed erosion control plans for new development or redevelopment projects that are subject to such requirements. It is anticipated that this work effort would be complete during the five year permit term.

4.4.4 Annual Reporting

The data collected for each BMP will be compiled and summarized in annual reports. The data will include the number of projects inspected and percent compliance with the erosion and sediment control policy, enforcement of violations, and inspector training. The report will include a narrative discussion of progress toward evaluating the need to develop an ordinance specific to construction site erosion and sediment controls as well as training programs for construction site operators and City inspectors (see BMPs 4.6 and 4.7). The annual report will provide a discussion of the methods to implement each BMP, progress toward achieving goals, any variances from targets, and proposed modifications to BMPS or adjustments to measurable goals.

Table 4.4

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year					Measurable Goals	Implementer
					1	2	3	4	5		
Evaluate need to revise current erosion and sediment control policy into stronger regulatory mechanism	Consider effectiveness as the policy currently stands with any perceived benefit of including it in an ordinance	Sediments, Gross Pollutants, Hydrocarbons	4.1a	Review construction projects subject to the policy for compliance	X	X				Document all projects reviewed and % compliance with policy	Building Division
			4.1b	Develop reports and statistics	X	X				Document all projects reviewed and % compliance with policy	Building Division
			4.1c	Hold meetings with inspectors and developers	X	X	X	X	X	Conduct monthly meetings with Inspectors to review compliance	Building Division
			4.1d	Decision to be made during third year of review			X			Make decision or adopt ordinance by end of permit year three.	Building Division
Evaluate the SBMC ordinance regarding erosion and sediment control requirements (Chap. 22, Section J111)	Consider effectiveness of the ordinance as it currently stands and any benefits of additional compliance assurance mechanisms	Sediments, Gross Pollutants, Hydrocarbons	4.2a	Develop outline, detailed work program, budget, and schedule to review code relative to other comparable City codes		X				Approval of Workplan	Building Division
			4.2b	Develop revisions		X				Submit revisions to Ordinance Committee for review by end of permit year two.	Building Division
			4.2c	Hold public workshops and hearings		X	X			4 meetings	Building Division
			4.2d	Ordinance adoption			X			Adopt ordinance by end of permit year three.	Building Division

Table 4.4

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year					Measurable Goals	Implementer
					1	2	3	4	5		
Track BMP inspections, violations, and resolution to violation	Identify problem areas or types of BMP and their effectiveness	Sediments, Gross Pollutants, Hydrocarbons	4.3	Use CASQA BMP Fact Sheets as checklist for proper implementation and maintenance confirmation and use existing computer permit software to track	X	X	X	X	X	BMP inspections must be completed prior to October 15, or within the first week of work if construction begins after October 15	Building Division
Provide ongoing inspection of BMPs throughout course of construction with a focused priority on larger sites with slopes and/or adjacent to a creek	Ensures adequacy and maintenance of the BMPs	Sediments, Gross Pollutants, Hydrocarbons	4.4	BMPs must be in place and functional before any other building inspections can be made; this makes sites with detailed erosion control plans a priority	X	X	X	X	X	Building permit date formally kicks off inspection; track permit dates and number of inspections per site. Inspect BMPs using CASQA BMP Fact Sheets	Building Division
Enforcement of violations related to erosion control issues for construction projects	Identify problem areas or types of BMP and their effectiveness	Sediments, Gross Pollutants, Hydrocarbons	4.5	Enforcement cases are tracked in database, along with contractor, developer, grading engineer, and any other associated personnel	X	X	X	X	X	Track 100% of enforcement cases and report offenders in Annual Report	Building Division
Achieve compliance with erosion and sediment controls	Reduce pollution from construction sites	Sediments, Gross Pollutants, Hydrocarbons	4.6	Provide additional training to construction site operators	X	X	X	X	X	Reduce the number of violations by 10% each year	Building Division

Table 4.4

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year					Measurable Goals	Implementer
					1	2	3	4	5		
Maintain and increase Building and Public Works Inspectors knowledge of design and implementation of erosion control BMPs	Yearly training to ensure proper use and installation methods	Sediments, Gross Pollutants, Hydrocarbons	4.7	Provide annual training of Building and Public Works Inspectors	X	X	X	X	X	100% of all inspectors trained each year.	Building Division

4.5 Minimum Control Measure 5: Post-Construction Storm Water Management in New Development and Redevelopment

The following discussion outlines the policies and practices currently in place that form the basis of the City's storm water management program for new development and redevelopment. It presents the City's design review and approval process which illustrates how storm water related policies and strategies are implemented in new development and redevelopment. These policies provide the regulatory mechanism for the implementation and enforcement of post-construction storm water management best management practices. As noted in the introduction, the intent of this SWMP is to meet water quality standards contained in the Statewide Water Quality Control Plan, the California Toxics Rule, and the Regional Water Quality Control Board Basin Plan.

Post-construction storm water management control measures are permanent facilities and on-going practices that address long-term storm water quantity and water quality of new development and redevelopment. Through its existing policies and practices which taken together provide the basis for a storm water management program for new development and redevelopment, the City presently meets all minimum design standards for post-construction storm water management for *specified discretionary projects* as established by the State General Permit. The City development design review and approval process also *goes beyond the State minimum standards* by applying design and maintenance criteria for post-construction storm water management to all discretionary projects (see BMP 5.1).

The discussion under MCM 5 is supplemented by Appendix E which includes specific policy language, ordinance provisions, standard language for design standards applied as mitigation measures and conditions of approval, BMP standards and requirements, specific exemptions for minor discretionary projects, and the Development Application Review Team (DART) SWMP checklist used in design review and application of permit conditions for discretionary projects approved by the Planning Commission.

Over the five-year period of the City Storm Water Management Plan, the City will continue to apply post-construction storm water management design criteria as applicable to new discretionary development and redevelopment projects, and will further incorporate design and maintenance criteria into ordinance provisions of the Santa Barbara Municipal Code to assist in their implementation. As part of the ordinance development, public review, and approval process, the City will study and consider additional post-construction best management design criteria, such as low impact development (LID) criteria.

The Measurable Goals and Pollutants of Concern addressed in the Post-Construction Storm Water Management Minimum Control Measure are shown in Table 4.5.

4.5.1 Best Management Practices

1. Land Use Policies That Pertain To Storm Water Management

The City of Santa Barbara has adopted land use policies and permit processes for new development and redevelopment that provide for storm water management and protection of water quality, including the long-term post-construction period.

The City *General Plan* and *Local Coastal Plan* contain policies for protection of water quality, creeks, hillsides, and biological resources, conservation of water resources, and provision of adequate flood control and drainage facilities. The *Santa Barbara Municipal Code* also has numerous provisions addressing aspects of storm water management, including permitted land uses and development standards, uniform construction code, storage and parking design, hazardous waste management, vegetation removal, landscaping requirements, flood plain management, development along creeks, water conservation standards, and utilities. Other adopted policies are contained in the *Architectural Board of Review Guidelines*, and the Public Works Department *Procedures for Runoff Control*. Appendices D, E and F contain a detailed description of each of these policies as well as the text from the relevant sections of the municipal code.

- The *General Plan Conservation Element* establishes extensive goals, polices, and implementation strategies for managing water resources and supply, water quality, drainage and flooding, protecting creek resources, guiding hillside development, and protecting associated vegetation and wildlife resources and visual aesthetics.
- The *General Plan Open Space Element* establishes the importance of conserving, protecting, and improving land and water spaces important to Santa Barbara's landscape. Creeks are to be maintained in their natural state and further artificial channelization is not to occur. New construction is to respect creeks as important community open spaces. The Santa Ynez Mountains and major hillsides are recognized as resources requiring protection and preservation.
- The *General Plan Parks and Recreation Element* provides policy guidance pertaining to the importance of preserving creeks as natural open spaces and avoiding channelizing of creeks.
- The *General Plan Seismic Safety/Safety Element* identifies local flooding conditions, geologic hazards, erosion, and vegetative fuel management as it relates to fire prevention. A summary of existing requirements to address geologic hazards is provided, including requirements for engineering geologic reports, soil reports, and building plans and specifications, requirements to address flood hazards and implement the City's floodplain management ordinance that prohibits development within the 100-year floodplain except under certain restrictions, and requirements to address fire hazard including fuel

management requirements for all projects within the High Fire Hazard area of the City.

- The *Local Coastal Plan* establishes goals, policies and implementation strategies that address protection of water and marine environments, including creeks located within the Coastal Zone. Setback buffers are required between top-of-bank and any proposed development and policies provide specific direction for proposed channelizing, dams, or other substantial alterations, and bridges and other highway structures. Hazard reduction and resource protection associated with erosion is also addressed.
- *Municipal Code Chapter 22.80 of Title Twenty-Two Environmental Policy and Construction, and City Council Resolution 89-077, Water Conservation,* mandate water-efficient plumbing, landscaping, and irrigation systems in development.
- *Municipal Code Section 28.87.250, Development Along Creeks of Title Twenty-Two Environmental Policy and Construction,* sets forth a process and guidance provisions for minimizing development impacts within 25 feet of the top-of-bank of Mission Creek.
- *Municipal Code Chapter 14.56, Natural Watercourses and Storm Drain System of Title Fourteen Water and Sewers,* prohibits the dumping or placing of obstructions in watercourses and storm drains, and establishes permit requirements for connection to the storm drain system and work within a watercourse between top of banks.
- *Municipal Code Title 16, Liquid and Industrial Waste Disposal,* contains provisions to protect the waters of the State; provide against pollution of stream, creeks and storm drains; and, to control and regulate discharges into storm drains and sewerage conveyance and treatment systems.
- *Municipal Code Chapter 22.24, Flood Plain Management of Title Twenty-Two Environmental Policy and Construction*, sets forth provisions for development within the 100-year floodplain.
- *Municipal Code Chapter 22.10 Vegetation Removal of Title Twenty-Two, Chapter 15.24 Tree Planting and Maintenance* and *Chapter 15.24 Tree Preservation of Title 15*, contain provisions on the type and amount of vegetation that is permitted to be removed and/or planted, with the overarching goals of preserving and restoring appropriate vegetation for the City's different habitat areas, and reducing erosion potential.
- *Municipal Code Section 28.90.050.3, Parking Design of Title 28 Zoning Ordinance,* establishes standards for required landscaping of parking lots.
- *Municipal Code Chapter 22.68. Architectural Review Board of Title Twenty-Two Environmental Policy and Construction*, sets forth the procedures and findings for the design review and approval of projects proposed in hillside areas of the City, all subdivisions, and projects involving buildings of significant size.
    - Required findings include: The public health, safety and welfare will be protected. The grading and development will be appropriate to the site,

have been designed to avoid visible scarring, and will not significantly modify the natural topography of the site or the natural appearance of any ridgeline or hillside. The project will, to the maximum extent feasible, preserve and protect any native or mature trees. The proposed grading or vegetation removal will result in no significant increase in siltation or decrease in water quality of streams, drainages or water storage facilities to which the property drains.

- *Municipal Code Section 22.68.060, Neighborhood Preservation Ordinance of Title Twenty-Two Environmental Policy and Construction,,* includes policies for minimizing grading and hillside development and protecting native and mature trees.
- The *Architectural Board of Review Guidelines* for buildings and landscaping establish policies supporting BMPs for storm water management, including:
    - Minimizing paving and maximizing vegetation, Use of native plants whenever possible, Waste minimization, Protection of natural features and re-vegetation of graded areas, Use of deep-rooted species on hillsides or bluff tops susceptible to erosion, Use of water efficient landscaping and irrigation systems, Avoidance of species requiring substantial watering on steep hillsides, Landscape design to enhance natural drainage and biofiltration of pollutants through the use of bioswales and other techniques
    - Use of urban runoff/pollution control Best Management Practices to increase the permeability of sites and on-site percolation of runoff, such as design of projects to collect runoff on-site and maximize permeability of hardscape areas with brick or pavers on sand
    - Enhancement of drainage flow on and through the site by use of natural watercourses, earth swales, v-ditches, drywells and water dissipation devices
    - Design of streets to limit grading quantities and steep, exposed excavations. Consideration of the use of ribbon driveways, pavers and other materials that decrease the amount of paving and increase permeability
    - Parking lot designs that provide canopy trees, perimeter planters, and consider variable pavement materials to increase permeability
    - Compatible landscaping in natural surroundings such as hillsides and creeks
    - Inclusion of erosion control measures with hillside landscaping
    - Avoidance of degradation of creeks and riparian habitat.
- The *Single Family Residence Design Guidelines* contain specific guidelines for projects proposed within the hillside areas of the City, including limiting the amount of grading to avoid erosion, visual and other impacts.

- The *Landscape Design Guidelines* state that landscape plans should reflect consideration of sustainable landscaping principles and show special consideration to creeks, water courses and wetlands. Specific guidance is provided as follows:
    - Protect existing natural features and re-vegetate graded areas.
    - Consistent with the Seismic Safety/Safety Element, species that add weight to a hillside (such as ice plant) shall be avoided on steep hillsides or adjacent to bluff top areas susceptible to erosion. Deep-rooted species that assist in stabilizing slopes and control erosion are encouraged.
    - Design landscaping to enhance natural drainage and biofiltration of pollutants through the use of bioswales and other techniques.
    - Use urban runoff/pollution control Best Management Practices to increase the permeability of sites and on-site percolation of runoff. For example, design projects to collect runoff on-site and maximize hardscape permeability with brick or pavers on sand.
    - Use natural watercourses, earth swales, v-ditches, drywells and water dissipation devices to enhance drainage flow on and through the site.
    - Use methods to retain water on the site to recharge groundwater, and to use for future watering (i.e. cisterns).
    - Development in and adjacent to creeks shall not degrade the creeks or their riparian environments. Where existing creeks, watercourses, and/or wetlands provide a natural environment, avoid removal of these environments.
    - Protect, maintain, enhance, and/or restore native plant species and vegetation in areas along natural creeks, watercourses and wetlands.
    - Consult a licensed landscape architect and/or biologist to determine and provide recommendations and/or specifications to plant, protect or revegetate a site. In many cases, a biologist will be required to participate in the development of restoration and/or re-vegetation plans.
    - Only native, non-invasive vegetation shall be used or planted immediately adjacent to creeks, watercourses and/or wetlands. Also, see Conservation Element and Local Coastal Plan direction regarding development on bluffs.
    - Vegetative buffers shall be provided between these natural areas and developed or high-use areas. Buffer vegetation should be native, but may include non-native vegetation if it is non-invasive.
- The *Erosion / Sedimentation Control and Storm Water Quality Management Program* identifies standards for erosion prevention, sediment control and storm water quality management during construction, and long-term post-construction site stabilization. The provisions of this policy are intended to prevent and reduce adverse impacts to the drainage system and creeks from construction projects*.* In

combination with other state, federal, and local laws and ordinances, these requirements are intended to protect the beneficial uses of waters within the watershed.

- In year one, the City will finalize the *Storm Water BMP Guidance Manual* and staff training program for post-construction design standards (see BMP 5.4). The manual will establish clear post-construction BMP design guidelines that are site-specific. The associated staff training program will be designed to educate staff of the technical designs in the manual that are appropriate for site design to protect and improve water quality. Once developed, the City will apply the updated design guidelines to all projects throughout the permit term. In year two, the City will develop a draft storm water ordinance and in year three the ordinance will be finalized and adopted to, among other things, enforce post-construction design standards for storm water management (see BMP 5.4).

  As the Guidance Manual is implemented over time, the City will study and consider additional design standards for volumetric or flow-based treatment control. Which projects trigger the storm water management requirements will also be revisited and revised, if appropriate (see BMP 5.5).

2. Design Review and Discretionary Approval Process

The following discussion of the design review and discretionary approval process illustrates how the City establishes review criteria for new development and redevelopment projects.

Discretionary Permits

Pursuant to State Planning and Zoning Law and the City Charter and ordinances (Santa Barbara Municipal Code), development and redevelopment projects within the City are subject to various levels of permitting. In general, larger projects are subject to *discretionary permit approval* by specified decision-makers (Planning Commission, City Council, Staff Hearing Officer). Discretionary permit types include annexations, specific plans, general plan land use designation amendments and zone changes, subdivisions and lot line adjustments, conditional use permits, coastal development permits, development plans and site plans, land use conversions, variances and modifications, and projects that fall within a special design district boundary or designated sensitive area (i.e., El Pueblo Viejo, Lower Riviera Survey Area, Mission Area, West Beach Survey Area, Riviera Campus Historic District, Coastal Zone, Hillside Design District, etc.).

Projects of one acre or greater in size that are subject to the State General Permit and Attachment 4 post-construction design standards are subject to City discretionary permit approval. However, projects of this size are infrequent, given that the City is largely developed out. Most discretionary development proposals in the City are smaller in size than the State General Permit minimum criteria.

All discretionary review projects, regardless of size or type of land use, receive extensive development review, may require preparation of an environmental document pursuant to the California Environmental Quality Act (CEQA), and receive detailed conditions of approval for storm water management as applicable. These projects are also subject to subsequent Design Review approval of architecture and landscaping, and ministerial approval of building permits for demolition, grading, and construction.

Design Review Approval

Projects for development or redevelopment that meet zoning ordinance development standards and do not involve the types of permits identified above may require only *design review approval* of project architectural and landscape design by the Architectural Board of Review, Single Family Design Board, or Historic Landmarks Commission. Examples are small commercial and mixed use structures, multi-family structures (3+ units), duplexes, or two detached units on a site, new or exterior additions to existing structures and buildings located within the Hillside Design District or one of the Historic Preservation Districts, buildings on slopes exceeding 20% and involving site grading of 250 cubic yards or more outside of building envelopes, substantial tree or vegetation removal, and/or large (typically >4,000 square feet) and tall (>17 feet) structures subject to Neighborhood Preservation Ordinance findings. Most of these projects incorporate design criteria for the site, structure, and landscape through the review process by the design review boards, do not receive extensive staff development review or conditions of approval, and are exempt from CEQA environmental review.

3. Discretionary Permit Development and Environmental Review Process

The following discussion of the discretionary permit development and environmental review process provides the framework for how the City currently addresses storm water runoff in new development and redevelopment.

Discretionary projects receive detailed staff review by a Development Application Review Team (DART) made up of staff from the Planning, Building and Safety, Public Works Engineering, Transportation Planning, and Fire Divisions, and other Divisions as applicable (Solid/Hazardous Waste, Creeks, Water Resources, Airport, Waterfront, and Parks). Proposed projects are reviewed for site and grading design, structure and landscape design, circulation and public services, environmental impacts and mitigation, land use compatibility, and consistency with City policies and ordinance provisions. The City has developed a SWMP checklist that is used during staff review to identify relevant storm water management design requirements (see Appendix E).

The Public Works Engineering Division reviews for provisions affecting public facilities, including storm water systems, water, sewer, and roads; the Building and Safety Division reviews for private property drainage and flood control facilities, site grading and construction, and structural design; and the Planning Division reviews for proposed land use and design of the site, landscaping, and structures, environmental impacts, land use compatibility, and consistency with policies and zoning standards. Staff

provides recommendations on project design and conditions of approval, but final design characteristics are determined by the project discretionary permit decision-maker (Planning Commission, City Council, Staff Hearing Officer, Architectural Board of Review, Single Family Design Board, or Historic Landmarks Commission). Substantial conformity of final design with approved discretionary plans is determined by Community Development and/or Public Works staff as part of the subsequent land use clearance and building permit process.

Permit process steps that include *review of storm water management issues* include:

- *Pre-Application Review*, in which staff advises prospective permit applicants of development and design issues, City policies and standards, review process steps, and information needs;
- *Application Review*, during which staff reviews proposed project plans, identifies information needed from the applicant in order to analyze the project, and provides advisories about City policies and ordinance requirements and likely conditions of permit approval;
- *Development and Environmental Review*; which includes preparation of a staff report to the decision-making body analyzing the project and identifying proposed conditions of project approval, and environmental analysis under the California Environmental Quality Act (CEQA) to evaluate potential project impacts and feasible mitigation measures to reduce impacts, including project effects associated with public facilities and services (storm water systems), water resources (potable water supply and demand), and flood control, drainage, and water quality (creeks, groundwater, and storm water); ***at this point in the review and permitting of new development and redevelopment projects, City staff complete a SWMP checklist to identify relevant storm water management design guidelines and requirements (See Appendix E and the City's Technical Guidance Manual for Post-Construction Storm Water Management);***
- *Discretionary Permit Approval*, involving a public hearing on the project at which the decision-making body (Planning Commission, City Council, or Staff Hearing Officer) considers staff analysis and recommendations, and comments from the applicant and public, before deliberating, making required findings, and taking action to approve or deny the application, with permit approvals conditioned on project implementation of measures to ensure adequate public facilities and reduce project environmental effects, as identified by CEQA review documentation or required for consistency with City policies or ordinances. ***At this point in the review and permitting of new development and redevelopment projects, storm water BMPs and design standards that are required for project approval and construction are applied as mitigation measures and conditions of approval (see Appendix E and the City's Technical Guidance Manual for Post-Construction Storm Water Management);***

- *Design Review and Building Permit Approval*, which requires approval of architectural and landscape design by the Architectural Board of Review or Historic Landmarks Commission; and issuance of Building Permits for demolition, grading, and/or construction after review for compliance with plans and conditions ***(see Appendix E and the City's Technical Guidance Manual for Post-Construction Storm Water Management)***; and
- *Permit Compliance* includes monitoring of project construction and inspection of completed development to check and enforce compliance with approved plans and conditions.

4. Implementation of State Required Minimum Design Standards and BMP Strategies

Minimum design standards for post-construction storm water management are prescribed by Attachment 4 of the State General Permit, and apply to discretionary development and redevelopment projects of the following types:

- Single-family hillside residences
- 100,000 square foot commercial developments
- Automotive repair shops, retail gasoline outlets, restaurants
- Home subdivisions with 10 or more housing units
- Parking lots of 5,000 square feet or more with 25 or more parking spaces and potentially exposed to storm water runoff.

The State minimum design standards pertain to the following:

- Peak storm water runoff discharge rates
- Natural area conservation
- Minimization of storm water pollutants of concern
- Protection of slopes and channels
- Storm drain stenciling and signage
- Design of outdoor storage areas
- Design of trash storage areas
- Ongoing maintenance verification
- Structural or treatment control BMPs
- Design of individual project types.

The existing City design criteria for the State minimum design standards are described below. A matrix of the relevant City policies and ordinances that provide the basis for the application of these design standards follows this discussion.

<u>Peak Storm Water Runoff Discharge Rates</u>

To meet State General Permit requirements that post-development peak storm water runoff discharge rates not exceed the estimated pre-development rate, the City applies

the general rule that post-development peak storm water runoff discharge rates not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion. The City goes beyond the General Permit minimum standards by applying this general rule for peak storm water discharge rates to all discretionary development and redevelopment projects undergoing Planning Commission permit approval regardless of project size or type, as feasible given site circumstances. Drainage calculations are required as part of the development and environmental review process; runoff discharge limitations are applied as conditions of project approval; final plans are checked and development inspected; and maintenance of BMPs (see BMP 5.2)is required by condition of approval.

As described above, discretionary projects are reviewed by a team which includes the Building and Safety, Engineering, and Planning Divisions. Standard requirements include the following:

- Discretionary projects are required to provide drainage calculations on the pre- and post-development runoff.
- Retain, at a minimum, the peak run-off differential from pre- and post-conditions for a 25 year storm, if feasible for the site.
- Retain *and treat*, at a minimum, the calculated amount of post-construction runoff from the project site for a one inch storm event, if feasible for the site, using structural BMPs such as bioswales/bioretention areas (vegetated filters) and mechanical BMPs, such as manufactured filters.
- If these methods are not feasible, projects are to retain excess water with underground tanks under the same above-mentioned criteria, if feasible.
- Runoff is calculated by County of Santa Barbara hydrograph data and the Manning Equation.
- Bioswale and retention calculations are determined with the SCS, synthetic unit triangular method.

The project review and approval process directs all developments to decrease the post-construction run-off with at least the same volume of retention. The following equation has been used for volumetric calculations of retention: V=0.5XQ25 increaseX2.67XTc, where Q25 increase is the increased post construction run-off and Tc is the time of concentration, which is 720 seconds.

<u>Natural Area Conservation and Grading Limitations</u>

Although largely developed out as an urban area, the City of Santa Barbara is noted for the extensive incorporation of trees and landscaping within urban development. Adopted City General Plan policies and ordinances support implementation of these site design criteria which include to cluster development, minimize grading and clearing of native vegetation, maximize trees and vegetation, promote the use of native and drought-tolerant vegetation; incorporate landscaping in parking lot design; and preserve riparian areas and wetlands. The PRD (Planned Residential Development) Conditional

Use Permit and PUD (Planned Unit Development) zone also specifically provide for clustering development to preserve open space.

The City presently meets the State General Permit minimum design standards for natural area conservation as specified in Attachment 4 of the permit by applying the general criteria of limiting grading, and preserving open space and native vegetation, as feasible, given site circumstances, through the review and approval process of specified discretionary project types of one acre or greater. The City goes beyond the State minimum design standards by applying these criteria as feasible to all discretionary development and redevelopment projects requiring Planning Commission permit approval, regardless of project size or type. Grading plans, biological resources reports, arborist reports, and landscape plans are required as applicable for environmental analysis and design review of discretionary projects. Site layout and landscape requirements, environmental mitigation measures and standard requirements pursuant to policies and ordinances are applied as conditions of discretionary project approvals to limit grading, preserve open space and native vegetation, with final plans checked, development inspected, and ongoing maintenance required as a condition of approval.

Minimization of Storm Water Pollutants of Concern
(Oil, Grease, Gasoline, Metals, Pesticides, Pathogens, Suspended Solids)

Adopted City General Plan policies, ordinances, and guidelines support implementation of design criteria to minimize water pollutants. All new discretionary residential, commercial, industrial, and transportation development and redevelopment projects are subject to incorporation of BMPs through the design review process and application of permit conditions of approval, with final plans checked, development inspected, and ongoing maintenance required.

For minor projects, the direction is to promote low impact designs and passive BMPs that require little maintenance, such as use of vegetated swales for site drainage, use of permeable types of paving, and minimizing hardscape areas. Since all projects are subject to the general policy of no increase or reduction in post-development run-off, if there is a detention requirement, it can be part of a treatment system. This may consist of BMPs such as vegetated swales and detention basins, or filters coupled with detention or infiltration BMPs, where the water is filtered through a manufactured filter before discharge to the vegetated swale or detention basin. The general design criteria are 1” for retention systems and .25” for flow-through treatment systems.

For automotive-related pollutants of concern, projects with 10 or more parking spaces are required to incorporate BMPs. A BMP may be required to treat runoff from the entrance drive for covered parking areas by collecting the water in a trench drain and filtering before discharge. Basement parking garages must provide for treatment of any storm water that is discharged from the basement garage to the storm drain. Typical BMPs are to discharge to a vegetated swale, constructed sand filter, or through a manufactured BMP, such as a drain inlet filter or wet-sump filter.

For suspended solids associated with erosion and sedimentation, particularly for projects in hillsides, near creeks, or that involve substantial earthwork, adequate measures are required for long-term post-construction slope stability and erosion/sedimentation control through the project design review and permit conditions. Such measures may include project siting and layout to avoid steep slopes (exceeding 15%); adequate setbacks from creeks (minimum 25-foot from urban area creeks), grading design to establish adequate long-term stability; use of retaining walls; adequate re-vegetation of disturbed soils; use of detention basins and inlet protections, with required ongoing maintenance.

For use-specific pollutants of concern, commercial, industrial, institutional or large residential projects are required to meet the design requirements of the State Permit Attachment 4 for design of loading/unloading dock areas; repair/maintenance bays, vehicle/equipment wash areas; fueling areas, etc. to minimize gas, oil, metals, and nutrients from entering the storm water system. Such design measures include covered areas, secondary containment, drainage design, use of grease traps and clarifiers, and wash area drainage connection to a sump or sanitary sewer.

Protection of Slopes and Channels

For the specified discretionary projects identified in Attachment 4, as well as for other discretionary projects located on hillsides and/or adjacent to creeks or other water courses, the City requires analysis of site-specific circumstances and applies measures to protect slopes and channels. As part of the City development application process and CEQA environmental review process, project applicants are required to submit information and analysis about slopes and channels, which City staff uses in development review and environmental review of the project. The staff report on the project to decision-makers provides a summary of hillside and/or creek resource issues and analysis, proposed conditions of permit approval, and staff recommendations on the project design.

There is great variability in both creek conditions and hillside conditions in the City. Creek bank erosion control and bank stability design as well as hillside slope stability design are based on site-specific conditions and analysis. In general, consistent with the adopted Conservation Element and other policies and ordinances, the goals of slope stability and channel protection are to provide stability and protection over the long term, use the least environmentally damaging approach, and minimize erosion and sedimentation effects and effects to biological habitats and species, improving resource conditions as feasible.

As applicable to particular site circumstances, information and analysis by technically qualified analysts is required for creekside projects, including:

- Identification of existing site conditions (geomorphic, hydraulic, biological, geotechnical; top-of-bank determination)

- Proposed project information and plans and potential project effects on slopes and channels (preliminary grading plan, preliminary drainage plan)
- Identification of mitigation measures and plans to protect slopes and channels and associated resources (i.e. slope stability, permanent erosion control, vegetation management, creek restoration and enhancement, including protection of biological values such as with shade provisions, water temperature maintenance, nutrient filtering, wildlife movement corridors, unimpeded fish movement, and wildlife habitat, etc.)

For hillside projects, as applicable, information required includes existing slope conditions, a preliminary project grading and drainage plan, and permanent slope protection measures.

Conditions of permit approval are applied to require adequate measures for the protection of slopes and channels, and measures for ongoing maintenance. For projects requiring a CEQA environmental review document (Environmental Impact Report or Negative Declaration), a Mitigation Monitoring and Reporting Program providing for a separate Project Environmental Coordinator is adopted as a condition of approval. Other projects are subject to routine City permit compliance programs.

Storm Drain System Stenciling and Signage

As noted in MCM 1, Public Education and Outreach, the City has installed storm drain decals on all storm drain and catch basin inlets. For any new development or redevelopment that requires storm drain construction or reconstruction, the City applies signage measures as conditions of approval to all discretionary projects requiring Planning Commission permit approval as applicable, with final project plans checked and development inspected.

Outdoor Material Storage Area Design

Design of outdoor material storage facilities in a manner to protect water quality is supported by adopted City water protection policies as outlined in Section 3 of this SWMP. Outdoor storage without the containment features specified in Attachment 4 is not permitted in most residential and commercial zones, but could be allowed under existing provisions of the M-1 (Light Manufacturing), C-M (Commercial Manufacturing), OM (Ocean-Oriented Manufacturing), and several Airport zones. However, even within these zones, the design review, environmental review, and permit approval process for all discretionary projects (described in Section 3) provide for application of the design standards specified in Attachment 4 to discretionary projects with outdoor storage.

Trash Storage Area Design

Adopted City policies for water quality protection identified in Section 3 support proper design of trash storage areas. Project design review and/or conditions of approval for all discretionary projects with trash storage areas and that require Planning Commission

permit approval provide for walls, screening, covers and drainage containment provisions as specified in the Attachment 4 design standards. (See also Appendix E Development Application Review Team SWMP checklist used for project design review and permit conditioning.)

Structural or Treatment Control BMPs

The City meets the State minimum standards by applying requirements for volumetric or flow-based treatment control for specified discretionary projects. The design criteria are a one inch storm for retention systems and .25 inches per hour for four hours for flow-through treatment systems. The City goes beyond the State minimum standards by applying requirements for volumetric and flow-based treatment control as feasible through project design review and conditions of approval for all discretionary projects. (See also Appendix E Development Application Review Team SWMP checklist used for project design review and permit conditioning.)

Over the five-year period of the State General Permit and City Storm Water Management Plan, the City will continue to apply requirements for post-construction structural and treatment control BMPs, and will incorporate design criteria into ordinance provisions.

Design Standards for Individual Project Categories

The State General Permit post-construction design standards for discretionary projects provide requirements for proper design of the following individual project types and components to protect water quality:

- 100,000 Square Foot Commercial Developments. Design of loading/unloading dock areas; repair/maintenance bays, and vehicle/equipment wash areas.
- Restaurants. Design of equipment/ accessory wash areas.
- Retail Gasoline Outlets. Design of fueling area.
- Automotive Repair Shops. Design of fueling area; repair/ maintenance bays; vehicle/equipment wash areas; and loading/unloading dock areas.
- Parking Lots. Design of parking area; and operational provisions to limit oil contamination.

As discussed above, adopted City land use plans and policies support the design of projects in a manner to protect water quality. The City meets the State minimum standards for individual project categories by applying the post-construction design standards for water quality protection to discretionary 100,000 square-foot commercial developments, restaurants, retail gasoline outlets, automotive repair shops and parking lots. The City goes beyond the minimum standards by applying post-construction BMPs for proper design to protect water quality to all commercial, restaurant, gasoline retail, automotive, and parking lots with 10 or more spaces. (See also Appendix E, Development Application Review Team SWMP checklist used for project design review and permit conditioning.)

Over the five-year period of the State General Permit and City Storm Water Management Plan, the City will apply applicable BMPs for individual project designs to protect water quality.

Post-Construction BMP/Policy Matrix

This table identifies existing adopted City of Santa Barbara policies and ordinances that authorize and support current and ongoing implementation of Storm Water Management Program Minimum Control Measure (MCM) 5 for post-construction best management practices (BMPs) through the development and redevelopment design review and permitting process.

Post-Construction BMPs:	Peak Runoff Rates	Conserve Natural Areas	Minimize Pollu-tants	Protect Slopes, Channels	Drain Stencil	Outdoor Material Storage	Trash Storage Area	Verify BMP Maint	Structural Treat. Control	Individual Project Types
Policies:										
Conservation Element	X	X	X	X	X	X	X	X	X	X
Open Space Element	X	X	X	X					X	
Park and Recreation Element	X	X	X	X					X	
Seismic/ Safety Element	X	X	X	X	X	X	X	X	X	X
Local Coastal Plan	X	X	X	X	X	X	X	X	X	X
SBMC 22.80 CC Resolution 890-77 Water Conservation		X	X							
SBMC 28.87.250 Development along Creeks	X	X	X	X	X	X	X	X	X	X
SBMC 14.56 Natural Water-courses and Storm Drain System	X	X	X	X	X	X	X	X	X	X
SBMC Title 16 Liquid and Industrial Waste Disposal		X	X	X	X	X	X	X	X	X
SBMC 22.24 Flood Plain Management	X			X						
SBMC 22.10 Vegetation Removal		X	X	X						

Post-Construction BMPs:	Peak Runoff Rates	Conserve Natural Areas	Minimize Pollu-tants	Protect Slopes, Channels	Drain Stencil	Outdoor Material Storage	Trash Storage Area	Verify BMP Maint	Structural Treat. Control	Individual Project Types
SMBC 28.90.050.3 Parking Design	X	X	X				X	X	X	X
SBMC 22.68 Architectural Review	X	X	X	X	X	X	X	X	X	X
SBMC 22.68.060 Neighborhood Preservation		X	X	X						X
Architectural Board of Review Guidelines	X	X	X	X		X	X		X	X
Single Family Residence Design Guidelines		X	X	X						
ABR Landscape Design Guidelines	X	X	X	X	X			X	X	X
Erosion/Sedimen tation Control			X	X		X	X	X	X	X
Control of Runoff into Storm Drains, Watercourses	X	X	X	X	X	X	X	X	X	X

6. Long-term operation and maintenance verification of BMPs

Existing City water quality policies support the application of post-construction measures for verification of ongoing BMP maintenance. The City meets the State minimum standards and Attachment 4 requirements by applying these measures to specified projects through conditions of approval that require the project applicant to maintain landscaping and structural or treatment control BMPs for the life of the project, and provide reports verifying ongoing maintenance. In addition CEQA mitigation measures can be used to require long-term operation and maintenance of BMPs.

The City also goes beyond the State minimum standards by applying ongoing maintenance provisions for structural or treatment control BMPs to all discretionary projects requiring Planning Commission permit approval. Existing standard conditions applied to all discretionary projects as applicable require ongoing maintenance of landscaping and permanent BMP structures, such as bioswales and treatment interceptors. The City also has a permit compliance program under which complaints about permit compliance and zoning violations are responded to with investigations and enforcement actions as necessary (see BMP 5.3).

Over the five-year period for the State General Permit and City Storm Water Management Plan, the City will continue to apply conditions of approval to discretionary

projects requiring ongoing maintenance of post-construction structural or treatment BMPs, and will document the list of projects annually (see BMP 5.2).

7. Long-term Watershed Protection

The City Creeks Division has conducted two studies that help provide a baseline to assist with assessing the status of the goal of healthy watersheds:

- Creeks Inventory and Assessment Study (2000):Documents and evaluates the physical, biological, hydrological, and water quality conditions of major City creeks. Identifies and maps "problem" areas, where there are impairments to hydrological, biological, recreational, and water quality functions in the creeks. Develops a spatial database and an overall creek restoration approach, which includes specific recommendations.

- Existing Conditions Study of Santa Barbara Watersheds (2005): Presents research of environmental conditions based on available documentation and field surveys, provides a detailed characterization of each watershed, and reviews relevant federal, state, and local regulations. Includes assessment of geology and geomorphology, vegetation/habitat types, fisheries, land use, infrastructure, cultural resources, hydrologic processes, and water quality. Also identifies potential watershed stressors and creek management constraints and opportunities.

These studies and assessments identify problems and challenges in the watersheds, which are being addressed with BMPs in this SWMP and other local programs. So, these two documents, along with the City's ongoing water quality monitoring (see BMP 5.6) and biological assessments (see BMPs 5.7 and 5.8), supply the data needed to adapt or change the existing SWMP, if warranted.

More recently, the City has included provisions in the current (2008/2009) General Plan Update that consider new policies that address hydrology, water quality, riparian habitat, and flooding. The Environmental Impact Report for the General Plan Update is being scoped for policy changes that will continue, update, and expand the City's policies and programs that specifically support watershed planning (see BMP 5.9). Sustainable Neighborhood Plans are another part of the General Plan Update, which incorporate the goals, objectives, policies and implementation actions for watershed protection and creek restoration.

4.5.2 Implementation of Post-Construction Storm Water Management in New Development and Redevelopment Minimum Control Measure

Implementation of post-construction storm water management through project analysis, development of water quality mitigation measures and conditions of approval, and monitoring and permit compliance enforcement (see BMP 5.3) is accomplished through a staff team effort, involving the Community Development Department/ Planning

Division/ Development and Environmental Review Section, and Zoning and Enforcement Section, Community Development Department/ Building and Safety Division, Public Works Department/ Engineering Division, and the Parks and Recreation Department/ Creeks Division. See Appendix B for an organizational chart that outlines responsible departments and key contacts.

4.5.3 Measurable Goals

As shown in Table 4.5, a number of measurable goals will be used to check progress each year as well as demonstrate the efforts made to reduce pollutants to the maximum extent practicable. The intent is to provide an opportunity to assess and evaluate the program and provide feedback mechanisms to measure and update the program as appropriate.

4.5.4 Annual Reporting

The data collected for each BMP will be compiled and summarized in annual reports. The data will include documentation of all post-construction BMP requirements for new development and redevelopment, documentation of BMP compliance for all enforcement cases, status of ordinance development, progress and rationale for updating BMPs, and others. The annual report will provide a discussion of the methods to implement each BMP, progress toward achieving goals, any variances from targets, and proposed modifications to BMPS or adjustments to measurable goals.

Table 4.5

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Implement minimum design standards for post-construction storm water management prescribed by Attachment 4.	Maintain post-development peak storm water discharge rates at pre-development rates and reduce post-construction storm water pollution by applying post construction BMP design standards for new development and redevelopment.	Bacteria, nutrients, hydrocarbons, sediments, pesticides	5.1	Apply appropriate post-construction BMPs (using City's Storm Water BMP Guidance Manual) through development design review and permit conditions.	X	X	X	X	X	Document annual list of discretionary projects for which post-construction BMPs were included. Provide report to RWQCB annually.	Planning Division, Building and Safety Division, Public Works, Creeks
Require ongoing BMP maintenance and annual inspection and records for discretionary projects requiring Planning Commission permit approval.	Reduce post-construction storm water pollution by requiring that all BMPs are properly maintained.	Bacteria, nutrients, hydrocarbons, sediments, pesticides	5.2	Apply post-construction BMP maintenance/ inspection requirements through development permit conditions. Document annual list of audits and inspections.	X	X	X	X	X	Track "large projects" (see Tier 3 projects in Storm Water BMP Guidance Manual) for required BMP implementation, annual inspection, and reporting. Provide report to RWQCB annually.	Building and Safety
Take enforcement action to ensure BMP implementation/ maintenance on projects conditioned with BMPs that fall under Attachment 4.	Reduce post-construction storm water pollution by enforcing proper BMP maintenance.	Bacteria, nutrients, hydrocarbons, sediments, pesticides	5.3	Undertake enforcement actions through City enforcement program procedures, and document enforcement actions.	X	X	X	X	X	BMP compliance for all enforcement cases completed annually. Provide report to RWQCB annually.	Public Works, Building & Safety, Planning

Table 4.5

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Develop and implement City ordinance provisions that incorporate design standards for post-construction stormwater management BMPs, including peak stormwater discharge rates, capture and treatment of the one-inch storm, and preserving natural areas	Reduce post-construction storm water pollution by adopting and implementing an ordinance with development design standards.	Bacteria, nutrients, hydrocarbons, sediments, pesticides	5.4a	Develop outline, detailed work program, budget, and schedule. Develop draft ordinance.	X	X				Completion of draft ordinance by end of year two of permit.	Planning, Public Works, Building & Safety, Creeks
		Bacteria, nutrients, hydrocarbons, sediments, pesticides	5.4.b	Conduct an ordinance audit to identify and remedy areas in the municipal code and other policies/goals that conflict with enforcing design standards		X				Complete ordinance audit by end of year two of permit.	Creeks, Planning, Public Works, Building & Safety
		Bacteria, nutrients, hydrocarbons, sediments, pesticides	5.4c	Hold public workshops and hearings. Develop final ordinance. Ordinance adoption.		X	X			4 meetings. Completion and adoption of final ordinance by end of year three of permit.	Planning, Public Works, Building & Safety, Creeks

Table 4.5

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Update and implement post-construction volumetric and flow-based design standards and BMPs.	Reduce post-construction storm water pollution by improving the design and conditioning of projects for incorporation of volumetric and flow-based BMPs.	Bacteria, nutrients, hydrocarbons, sediments, pesticides	5.5a	Study and consider additional standards for volumetric or flow-based treatment control design standards.	X	X	X			Complete study and establish new standards by end of year three of permit.	Public Works
			5.5b	Apply design standards for non-discretionary projects requiring ministerial permits.				X	X	Incorporate BMPs in ministerial projects through design review/ permitting. Report to Regional Board annually.	Public Works
			5.5c	Update standard provisions for CEQA impact analysis.	X	X				Utilize updated CEQA checklist and guidelines in project review.	Planning
			5.5d	Update standard mitigations and conditions.	X	X				Utilize updated standard mitigation measures and conditions of approval in project review/permitting.	Public Works, Building & Safety, Planning
Storm Water Quality Monitoring Program	To target and assess known Pollutants of Concern and determine their sources and types	Bacteria, nutrients, hydrocarbons	5.6	Implement monitoring program (see Appendix G) and update/revise annually	X	X	X	X	X	Produce storm water quality monitoring reports annually and use results to revise existing BMPs	Creeks

Table 4.5

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Microbial Source Tracking Protocol Development Project	To begin identifying the sources of indicator bacteria in surface waters and to develop better methods of monitoring the presence of harmful bacterial pollutants	Bacteria	5.7	Implement source tracking project and continue research based on funding	X	X				Incorporate results into annual water quality monitoring report and use results to revise existing BMPs	Creeks
Biological Assessment Program	To assess and monitor the biological integrity of local creeks as they respond through time to natural and human influences	Bacteria, nutrients, hydrocarbons, sediments, pesticides	5.8	Implement assessment program by collecting and analyzing benthic macro invertebrate (BMI) samples and other pertinent physiochemical and biological data in creeks	X	X				Incorporate results into annual water quality monitoring report and use results to revise existing BMPs	Creeks
General Plan Update	To update the City's policies regarding many issues, including environmental stewardship and sustainable development	Bacteria, nutrients, hydrocarbons, sediments, pesticides	5.9	Scope affiliated EIR to include policy changes that will continue, update, and expand programs that specifically support watershed planning	X	X				Track General Plan update process and EIR. Report on outcome.	Creeks

4.6 Minimum Control Measure 6: Pollution Prevention/Good Housekeeping for Municipal Operations

The City of Santa Barbara has ten operations and facilities maintenance divisions in the Public Works, Parks and Recreation, and Fire Departments that are responsible for developing municipal infrastructure, providing public services and maintaining City facilities. These divisions are responsible for facilities such as the water distribution system, the wastewater collection system, maintenance of City facilities, parks maintenance operations and parking maintenance operations.

4.6.1 Best Management Practices

For each of the ten divisions and operational areas, the following discussion outlines the best management practices (BMPs) that are currently in place and additional BMPs that will be developed during the permit term. To a large extent, through the BMPs currently in place, the City of Santa Barbara's municipal facility operations and maintenance program and staff training program meets the State General Permit requirements. The primary additional step to be taken to comply with the State General Permit is the development of a formal operation and maintenance program for each division. Operational divisions will formalize their current activities and any new actions to reduce potential pollutants in storm water pollution prevention plans (SWPPPs) for their respective operations and maintenance programs (see BMP 6.1). In addition, the City will continue to develop and revise staff training programs to ensure that the City is using the best available methods to prevent storm water pollution (see BMP 6.2).

The Measurable Goals and Pollutants of Concern addressed in the Pollution Prevention/Good Housekeeping Minimum Control Measure are shown in Table 4.6.

1. Operation and Maintenance Program

The following discussion describes each of the operational divisions and departments and identifies specific BMPs that are currently implemented. All construction and maintenance work is conducted in accordance with the City's *"Procedures for the Control of Runoff into Storm Drains and Watercourses," as* outlined in Appendix F. Wherever applicable, new actions are also proposed.

<u>Public Works Department, Water Resources Division, Distribution System</u>

Approximately 300 miles of water mains, 25,000 water service connections, and 14 distribution reservoirs are operated and maintained for use in providing potable water service and recycled water service to City customers. When trenches are excavated to examine or repair pipelines, sediment discharges are minimized by implementing sedimentation control BMPs (see Section 4.4) and by covering worksites during the rainy season or at the end of a work day (see BMP 6.6). Excavations often involve paving and grinding operations and/or dewatering of the trenched area if pipes are

damaged. Therefore the Public Works Department is required to have a stock of filter bags, fiber rolls, sand bags, and vacuum equipment for incidents requiring sediment control (see BMPs 6.7 and 6.8). After these operations, the policy is that no construction materials or waste are left on the street at the end of a workday. Materials must be contained and/or covered (see BMP 6.9). Spill prevention is also a focus for several divisions of Public Works, and spill containment materials are stocked on all service trucks (see BMP 6.10).

Public Works Department, Cater Water Treatment Plant

Cater Water Treatment Plant operations include the operation and maintenance and upgrading of a 37-million gallon per day (MGD) water treatment plant to serve potable water to City customers as well as to the Montecito and Carpinteria Valley Water Districts. A number of pollution prevention measures are implemented during normal daily operations. These include the following:

- *Process Flows*
  All process flows are directed to one of the following destinations:
  - Recirculation to the front end of the treatment process
  - Minor discharges to the Wastewater Collection System, subject to separate permitting under the NPDES permit for El Estero Wastewater Treatment Plant
  - Treatment solids stored on site in settling basins; dried material is trucked to landfill for disposal in accordance with applicable regulations.

- *Containment Structures*: Containment structures for chemical handling areas.

- *Site Drainage*: Site drainage is routed through the facility's bioswale, installed as a part of recent treatment plant and landscape renovation.

Public Works Department, Collection System Program

Approximately 250 miles of wastewater collection mains and 12 wastewater lift stations are operated and maintained for use in providing sanitary sewer service to City customers. In addition to the trench excavation BMPs listed above for the Water Resources Division, the Public Works Department implements the following activities to reduce the potential for polluted discharges to the storm drain systems.

- *Wastewater main testing*
  Wastewater mains at creek crossing are tested twice a year to confirm there is no discharge to creeks.

- *Collection System Overflows*
  Complete investigation of collection system overflows during storm events and recommended solutions are developed and implemented.

- *Smoketesting*
  As part of regular collection system operations and maintenance, the City implements a smoke testing program of the public collection system and private laterals to identify instances of illicit inflow of storm water and potential cross connections of sanitary pipes to storm drain pipes.

- *Public Information and Outreach*
  The City also conducts public outreach to inform the public about the problem of storm water inflow to the collection system.

- *Private Lateral Maintenance Program*
  To prevent spills cased by broken sewer laterals the City is requiring property owners to inspect their sewer lateral. Home owners are required to inspect their lateral if they are doing significant remodeling or if City staff observe a lateral with cracks and/or roots during inspection of the City's system. The Zoning Information Report (ZIR) now contains a clause notifying buyers that sewer lateral are property owners' responsibility and strongly encourages having the laterals inspected before closing escrow. Commercial properties and condominiums must inspect their lateral once every ten years.

To encourage City residents connected to the City's sewer system to proactively inspect and repair private sewer laterals, the City now offers the following incentives to eligible properties:

a. Inspection Incentive – Up to $150 per property when City is provided a videotape and inspection report by a qualified inspector and the City review certificates that the lateral is in good repair. Rebate amount shall not exceed the cost of the inspection.
b. Replacement Repair Incentive – Up to $2,000 per property. Rebate amount limited to half the cost of repairs or $2,000, whichever is less.

<u>Public Works Department, El Estero Wastewater Treatment Plant</u>

The City operates and maintains an 11 MGD secondary treatment wastewater treatment plant to treat wastewater as well as a 4.3 MGD water reclamation treatment facility. A number of pollution prevention measures are implemented during normal daily operations. These include the following:

- *Process Flows*
  All process flows are directed back to the influent pump station for full wastewater treatment. Plant effluent is either discharged as treated effluent to the ocean outfall or processed further for use as recycled water for irrigation and other purposes. All of these operations are permitted separately under the NPDES permit for El Estero Wastewater Treatment Plant.

Public Works Department, Streets Division

The Streets Division is responsible for maintaining and repairing roadways, sidewalks, and storm drains and graffiti abatement. The Streets Division implements a number of BMPs that reduce the potential for pollutants to enter the storm drain system. These include sweeping streets, cleaning the City storm drain system, and maintaining storm water filters in the storm drain system.

- *Catch Basin Cleaning*
  There are 2187 City and County drain inlets in the City storm water system that are serviced by City crews at least once annually (see BMP 6.11). Catch basins that are most impacted with sediments are serviced several times a year. The materials removed from catch basins represent a reduction in pollutants that may otherwise drain to creeks and the ocean. There are 94 catch basins located on US Highway 101 in the Caltrans right of way that are serviced by Caltrans.

- *Catch Basin Filter and Storm Water Interceptor Maintenance*
  The City has installed 100 catch basin inlet filters in City drains, and 24 catch basin screen covers. Several different types of filters have been installed in an effort to find the most effective types of filters available. The filters are maintained by City crews using a truck mounted vacuum (see BMP 6.12 and 6.13). The Streets Division also maintains an 11 cubic feet per second *Continuous Deflective System* (CDS) unit on the Haley Street Drain. The CDS unit collects water from a 35 acre drainage area that includes the Paseo Nuevo Mall, and other commercial space and discharges to Mission Creek.

- *Corporation Annex Yard – Facilities Maintenance*
  The Streets Division is responsible for the operation and maintenance of the Corporation Annex Yard. The Annex Yard is the City's municipal operations yard used by several City Departments including: Public Works (Water and Streets), Parks and Recreation, and Police. The storm drains and wash areas have a number of pollution control mechanisms. Mechanical/Structural BMPs include a hazardous materials storage building; secondary containment for chemical storage shed; two vehicle wash bays connected to sanitary sewer (see BMP 6.3); addition of sediment basins to the wash bays; felt lined dumpster with sanitary sewer drain for filtering wet material such as catch basin filter waste; and, three storm water filters. The BMPs are maintained by the Streets Division. The Yard Person is responsible for completing weekly inspection log (daily when it rains) and scheduling BMP maintenance (see BMP 6.14).

- *Street Sweeping*
  The City has 476,251 miles of streets. Since the year 2000, the City has been increasing street sweeping in response to community concerns over water quality (see BMP 6.15). The City currently sweeps 228 curb miles a week. These areas include the most densely populated neighborhoods in the City. In 2006 the program expanded to include Hidden Valley and the Mesa neighborhoods,

approximately 98 curb miles that are swept twice a month. The final expansion will take place in July 2008, to include sweeping the San Roque neighborhood twice a month. Following the final expansion, the program will cover 81% of the City's streets.

Public Works Department, Facilities Division

The Facilities Division includes four operational units including Building Maintenance, Motor Pool, Communications and Custodial Services with involvement in controlling discharges into the storm water system.

Building Maintenance Program
The Building Maintenance Program provides maintenance and repair activities for 115 buildings consisting of approximately 300,000 square feet. As outlined in the BMP tables, the Building Maintenance Program conducts all construction and maintenance work, including contract work, in accordance with the City's *"Procedures for the Control of Runoff into Storm Drains and Watercourses."* There are three new BMPs that are proposed for development in the first two years of SWMP implementation. These include:

- Require vehicle fleet wash service to contain or otherwise eliminate all runoff (see BMP 6.3).

- Identify and implement BMPs for washing exterior building surfaces (see BMP 6.4).

- Develop checklist to be completed for every contract service where there is potential for polluted runoff. Amend existing contracts to include implementation of pollution prevention BMPs and compliance with General Permit (see BMP 6.5).

Motor Pool Program
The Motor Pool Program provides maintenance and repair activities on 515 fleet vehicles. It oversees the operation of 14 refueling stations located throughout the city. In addition to the BMPs outlined in Table 4.6, a number of pollution prevention measures are implemented during normal daily operations. These include the following:

- *Motor Vehicle Fluids*: Collect and recycle all fluids drained from motor vehicles.

- *Site Drainage*: Site drainage is routed through the facility's storm water interceptor.

- *Steam Cleaning*: All Steam Cleaning is done in a wash bay connected to sanitary sewer.

Custodial Services
The Custodial Services Program provides housekeeping services for 35 buildings comprising approximately 16,000 square feet. Custodial Services utilizes biodegradable (green) cleaning products when possible. All wash water is discharged to the sanitary sewer.

Public Works Department, Downtown Parking Program

The Downtown Parking Program is responsible for the maintenance and operation of 14 public parking lots, including nine surface lots, five multi-level garages. There are 3,241 parking spaces in the downtown parking lots. The lots are located in the downtown core, from Montecito to Anapamu Streets. The Downtown Parking Program implements a number of BMPs that reduce the potential for pollutants to enter the storm drain system (see BMPs 6.16 and 6.17). These include the following:

- *Surface Lot Cleaning*: All surface lots are swept daily or trash is picked up manually.

- *Parking Structure Cleaning*: A steam cleaner with vacuum recovery system is used for cleaning parking surfaces and trash enclosures.

- *Parking Structure Lot*s: Hydrocarbon absorbent filters have been installed in all drain inlets at the Train Depot lot.

- *Trash Enclosures*: Trash enclosures located in City lots are washed with full vacuum recovery of the wash water. Wash water is then discharged to the sanitary sewer (see BMP 6.19).

- *Landscape Maintenance*: Parking is implementing the City Integrated Pest Management plan. Employees receive "Green Gardener" training, and use a number of BMPs to manage landscape maintenance, including minimizing pesticide use and irrigation runoff.

- The Granada Garage will have a storm filter unit installed to capture all cleaning and rain water from all parking levels. Trash enclosures within the project will have floor drains that will direct cleaning water to the sanitary sewer.

- All drop inlets and catch basins in the downtown parking lots will be identified, and filters will be installed, if feasible.

Parks and Recreation Department, Parks Division

The Parks Division manages maintenance operations for 365 acres of developed parkland and 1,180 acres of open space parkland. The overall maintenance statement for parks is to maintain and provide safe and high quality parks, sports fields, building landscapes, clean restrooms, maintain street trees, street medians, and right of way

landscaping. The Parks Division is also responsible for overseeing capital projects, securing grants, monitoring safety programs, monitoring the Parks Division budget and providing overall ordinance compliance related to parks and street trees. The Parks Division implements a number of BMPs that reduce the potential for pollutants to enter the storm drain system.

Parking lot and sidewalk cleaning: A mechanical sweeper is used to clean sidewalks, curb and gutter and parking lots. Other hardscape areas are not washed down if the discharge reaches a storm drain or watercourse (see BMPs 6.15 and 6.16).

IPM Program: Parks has implemented an Integrated Pest Management program to reduce the amount and toxicity of pesticides used on City property, and where feasible, to eliminate pesticide use in public areas using alternative methods (see BMP 6.18).

Vehicle Washing: Parks vehicles and equipment are washed at the Corporation Annex Yard in a contained wash bay that is connected to the sanitary sewer system (see BMP 6.3).

Park Festival Clean-up: At the Oak Park Main picnic area and De La Guerra Plaza during festival season, the street and hardscape areas are cleaned with water with a recovery system, and with no discharge to the storm drain or watercourse.

Park Irrigation Maintenance: A significant number of parks are irrigated with reclaimed water, and these irrigation systems are checked on a monthly basis to minimize any possible runoff.

Parks Corporation Yard: Storm drain Inlets are protected with filters that capture petroleum hydrocarbons.

<u>Parks and Recreation Department, Golf Division</u>

The Golf Division maintains and operates an 18-hole regulation golf course on 82 acres that includes a putting green and driving range. The entire golf course, except for greens, is watered with reclaimed water from the City water reclamation system. The reclamation pump station and reservoir onsite are maintained by City Water Resources staff. The Golf Division implements a number of BMPs that reduce the potential for pollutants to enter the storm drain system. These include the following:

Reclaimed Water Maintenance

- Irrigation water usage is monitored daily and maintenance is logged daily.
- Dry runs are computed and compared to actual usage monitor logs.
- Shut down procedures are in place to minimize discharge from waterline breaks

- If a break occurs causing a discharge, water is either dispersed onto turf to avoid ponding or contained by a physical barrier or digging a hole. Wherever possible water can be pumped back into the sewer or used on turf.
- Flushing of mainlines is dispersed over turf areas and filtered into turf.
- Large dischargers are reported to cross connection reclaimed water inspector immediately. They will calculate and estimate gallons and report to state and regional authorities.
- Document discharges in daily work log.

Equipment Refueling Station at Golf Course Maintenance

- Pump shutoff location marked.
- Pumps electrically shut off nightly and nozzles at pump locked.
- Fill tanks are padlocked at all times.
- Spill containment materials are kept onsite.
- Daily site inspection.
- Employees are instructed to not top off fuel tanks.
- Monthly monitor test.
- Monthly pump dispenser readings.
- Daily fuel consumption log with vehicle/employee I.D.
- Fuels levels physically checked bi-weekly.
- Two staff assigned daily duty of site cleanliness.
- Fuel cans stored in non-flammable metal cabinet.

Equipment Storage

- Daily check and notation of any leaks.
- Soak pad/kitty litter readily available.
- Equipment stored outside is covered from elements.
- Each employee assigned monthly vehicle inspection reports for designated vehicles.

Equipment Wash Station

- Landa water stax system bioremediation removes oil, grease, hydrocarbons, and grass clippings from wash water prior to draining into sewer. This system meets all current and proposed E.P.A. regulations (see BMP 6.3).
- Two staff assigned to maintain system and haul away solids to recycle bin daily.

Equipment Repair

- Mechanic performs daily shop sweeping.
- Spill kits/soak pads/kitty litter readily available.
- Waste oil products are stored in drums labeled and contained in a weather proof containment.
- Black Gold, Inc. contracted to haul off hazardous waste.
- Safety Kleen contracted to service their water-based parts cleaning tank.

Clubhouse Area

- Contract clubhouse parking lot sweeping to collect debris on a monthly basis.
- Clean catch basins monthly or more often as needed.
- Clubhouse maintenance staff sweeps concrete surfaces daily.
- All surface drainage and storm drains flow directly onto golf course turf for infiltration.
- All wash wastewater from electric cart fleet flows directly onto turf.
- Restaurant concessionaire contracts for grease trap clean-up and filter maintenance.

Storm Water Management System (project managed by the Creeks Division - to be constructed at the Santa Barbara Golf Club in 2008-2009)

- Construct two retention basins, one detention basin, and four bioswale systems for treatment of urban storm water pollutants and increased infiltration.
- Plant emergent wetland plant species to increase effectiveness of treatment wetlands.
- Divert a residential storm drain to flow on to golf course turf and to constructed wetlands.
- Re-vegetate erosion prone slopes and drainages.
- Coordinate water quality monitoring with City Creeks Division.

Fertilizer Storage/Usage

- Keep only small inventories on hand (mostly organic). Buy it and use it.
- Store fertilizers on pallets covered with tarps.
- Clean-up any spill daily.
- Two employees are assigned daily duty to maintain this site.
- Liquid fertilizers are stored in a weatherproof locked room.
- Spill containment readily available.
- All surface drainage at maintenance yard drains onto golf course turf.
- Strict IPM practices followed with all applications. Foliar applications are applied at a light rate and allowed to dry. Other applications are lightly watered to remove material from leaf and infiltrate into soil.

Pesticide Storage/Usage

- Pesticides stored in weatherproof locked room.
- Pesticide room properly marked.
- Inventory log.
- Monthly use records.
- Spill containment readily available.
- Mixing/loading area away from any drain.
- Spray tank rinsate applied onto turf.
- Strict IPM procedures followed and reported on.

Fire Department

The Fire Department is responsible for the protection of life, property and the environment when natural and man-made catastrophes occur. The Fire Department responds to all types of emergency incidents and takes corrective action following federal, state and local regulations.

The Fire Department is involved in many vehicle and station maintenance activities. Fire engines are wiped down with a moistened chamois daily. The water from the bucket is then poured in a sink for disposal purposes. Passenger vehicles are washed at the nearby carwash facility.

When operating at the scene of a hazardous materials incident, Fire personnel follow applicable regulations and "best management practices". The protection of storm drains and contaminated runoff into creeks and waterways are of primary concern. Measures are put into place early in the incident to seal off the storm drain or divert the flow of contaminates away from the storm drain. Fuel, oil, and other liquids that result from traffic accidents are treated with an absorbent and packaged for disposal. These materials are never flushed into the gutters or into storm drains.

Other Municipal Operations Supported by the Creeks Division

Through its capital program and daily operations, the Creeks Division implements a number of good housekeeping municipal operations that address key pollutants of concern, including trash, sediment and bacteria.

Capital Program
Through its capital program, the Creeks Division is evaluating the effectiveness of a variety of water treatment technologies. Capital projects installed to specifically address storm water pollution include:

- Haley Street and Hope Avenue Storm Drain Diversions. The purpose of these two projects is to divert dry weather urban runoff from the storm drain to the sanitary sewer to reduce the introduction of polluted urban runoff to Mission Creek and Arroyo Burro.
- Westside Storm Drain Ultraviolet Facility: The purpose of this project is to remove bacteria from dry weather flows in the Westside storm drain prior to discharge into Old Mission Creek.

These projects will be monitored to determine the water quality benefits. In its annual report to the RWQCB, the City will document project results as well as describe any additional projects that may be developed.

The Creeks Division also funds the installation of catch basin filters and screens that are then maintained by the Streets Division. The purpose of the filters and screens is to capture trash prior to discharge into the storm drain system. Filters and screens are

located in areas with a higher incident of street trash and debris. Over the five year permit term, the Creeks Division will continue to evaluate and install new filters and screens on an as needed basis.

The Creeks Division develops and constructs creek restoration projects on City-owned land adjacent to creeks. The purpose of these projects is to enhance the function of the creeks for water quality benefits, restore riparian habitats, and to educate the general public about the importance of keeping creeks clean and protecting natural resources. The first project, the restoration of Old Mission Creek at Bohnett Park, was complete in December 2003. Project monitoring began in fall 2004.

In January 2007, the Creeks Division completed construction of the Arroyo Burro Estuary and Mesa Creek Restoration Project. Located at the end of the Arroyo Burro Beach parking area and within the Douglas Family Preserve, the project involves restoration of coastal estuarine, riparian and coastal sage scrub habitats and will improve water quality in Mesa Creek, the estuary, and at Arroyo Burro Beach. A 300 foot concrete culvert was removed in order to "daylight" Mesa Creek which now flows through an open creek channel to the expanded Arroyo Burro estuary.

Annual Inspections
Beginning in Year 1 of SWMP implementation, the Creeks Division will implement an annual inspection of maintenance yards and shops, along with a review of facility inspection reports, to identify and eliminate potential sources for polluted runoff. An annual inspection schedule will be developed and the Corporation Yard, Annex Yard, Facilities Maintenance Shops, Motor Pool Shop, Parks Yard, Golf Maintenance Shop, Cater Plant, and Parking Garages will be inspected (see BMP 6.20).

Creek Clean-ups and Portable Toilets
Although the City only owns a fraction of the creek areas in Santa Barbara, for the past four years the City has contracted with an outside service provider for weekly creek clean-ups. These clean-ups target trash, such as plastic, yard debris, feces, discarded household items, litter, and homeless encampments. The city identifies areas that need to be cleaned through its enforcement and water quality monitoring programs. The city also receives calls from Santa Barbara residents. On an annual basis, approximately 35 tons of discarded materials and gross pollutants are removed from creek areas. In its annual report to the RWQCB, the City will document annual creek clean-up efforts as well as describe any additional projects that may be developed.

The City also contracts for the placement and service of portable toilets in four areas adjacent to creeks that are known for human use. These areas include the labor line on Yanonali Street adjacent to Laguna Channel, Montecito Street at Mission Creek, San Andres Street at Bohnett Park, and Ninos Drive and Sycamore Creek. The purpose of these toilets is to reduce the potential for human feces to pollute the creeks. The City tracks the use and maintenance frequency of portable toilets that are placed adjacent to City creeks to help determine the effectiveness of their placement (see BMP 6.21).

However, due to countless external variables, it is not possible to accurately quantify the direct correlation between the portable toilets and reducing human waste in the creeks.

2. Training of City Operations Divisions

All ten operational areas receive annual BMP training to ensure ongoing implementation of pollution prevention measures. BMP training includes the review of all applicable BMPs, discussion and illustration of typical BMP applications, clarification as to correct procedures, and the identification of more efficient, economical, or effective pollution prevention methods.

All City employees will continue to receive training on storm water pollution prevention based on their work responsibilities. Much of the training will be integrated into existing training programs, such as safety training, presented to staff. To keep the training program interesting and relevant, new training materials will be developed, as needed, including video and informational handouts. Storm water training will continue to occur annually. In addition, managers will be given specific guidance on their departmental and contractual responsibilities for storm water management. The frequency and type of training will depend on the activities targeted.

The 10 City Operations Divisions that have practices that may have a potential impact on water quality will formalize their current activities and any new actions to reduce potential pollutants in pollution prevention plans for their respective operations and maintenance programs. Each plan will include, at a minimum, specific BMPs that are prioritized for implementation, an implementation schedule, and measurable goals. Vendors and contractors who provide services for the City will also be required to comply with BMPs outlined in specific pollution prevention plans (see BMP 6.1).

4.6.2 Implementation of Pollution Prevention/Good Housekeeping for Municipal Operations

The Public Works Department will be primarily responsible for implementation of the Pollution Prevention/Good Housekeeping for Municipal Operations Minimum Control Measures. Other departments such as Park and Recreation and Fire, will also be responsible for implementation of their respective BMPs. See Appendix B for an organizational chart that outlines responsible departments and key contacts.

4.6.3 Measurable Goals

As shown in Table 4.6, a number of measurable goals will be used to check progress each year as well as demonstrate the efforts made to reduce pollutants to the maximum extent practicable. The intent is to provide an opportunity to assess and evaluate the program and provide feedback mechanisms to measure and update the program as appropriate.

4.6.4 Annual Reporting

The data collected for each BMP will be compiled and summarized in annual reports. The data will include progress toward and evaluation of pollution prevention plans, number of staff trained annually, maintenance reports for municipal facilities and others. The annual report will provide a discussion of the methods used to implement each BMP, progress toward achieving goals, any variances from targets, and proposed modifications to BMPS or adjustments to measurable goals.

Table 4.6

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Develop and implement Pollution Prevention Plans for operations divisions	To eliminate pollutants and polluted discharges that may result from City operations.	Sediments, bacteria, hydrocarbons, metals, nutrients	6.1	Develop and implement pollution prevention plans.	X	X	X	X	X	Plans fully implemented by year one; Plans evaluated annually.	Streets, Water Distribution, Sewer Collection, Parking Facilities, Parks, Golf, Fire
Training	To train staff in the best ways to eliminate polluted discharges in the workplace.	Sediments, bacteria, hydrocarbons, automotive fluids, metals, nutrients	6.2a	Update training presentation materials based on input from operational division.	X	X	X	X	X	Update training materials annually.	Creeks; Streets, Water Distribution, Sewer Collection, Parking, Facilities, Motor Pool, Parks, Golf
		Sediments, bacteria, hydrocarbons, automotive fluids, metals, nutrients	6.2b	Train all operations division staff.	X	X	X	X	X	100% staff trained.	Creeks; Streets, Water Distribution, Sewer Collection, Parking, Facilities, Motor Pool, Parks, Golf
Vehicle and Equipment Cleaning	To prevent pollutants in vehicle wash wastewater from entering the storm drain.	Sediments, bacteria, hydrocarbons, automotive fluids, metals, nutrients	6.3a	Provide facilities for vehicle wash that are equipped to contain pollutants generated from vehicle washing.	X	X	X	X	X	2 facilities maintained and equipped.	Streets, Water Distribution, Sewer Collection, Parking Facilities, Motor Pool, Parks, Golf, Fire
		Sediments, bacteria, hydrocarbons, automotive fluids, metals, nutrients	6.3b	Require fleet vehicle wash service to contain car wash water, with permit for disposal of wash wastewater.		X	X	X	X	Track purchase orders annually beginning in permit year two, 100% implementation.	Facilities, Motorpool

Table 4.6

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Exterior Building Washing	To prevent discharge of washed pollutants into storm drain.	Sediments, chlorine, nutrients	6.4	Identify and implement appropriate BMPs.		X	X	X	X	Use of City approved BMP will be required on 100% of building wash services.	Facilities
Evaluate contractor compliance with BMPs for City contracts.	To ensure that all BMPs are properly maintained for maximum efficiency.	Nutrients, hydrocarbons, sediments, chemicals/cleaning compounds	6.5	Develop checklist to be completed for every contract service where there is potential for polluted runoff. Amend existing contracts to include implementation of pollution prevention BMPs and compliance with General Permit.	X	X	X	X	X	Track and file ammended contracts and completed checklists and take enforcement action when contractors do not comply. Achieve 100 % complicance and report on compliance in annual report.	Facilities
Trench Excavation	To prevent sediment discharge due to uncovered worksite or poor compaction.	Sediments	6.6a	Maintain a list of trench excavations in unpaved areas.	X	X	X	X	X	Update list annually.	Water Distribution; Sewer Collection; Facilities
		Sediments	6.6b	Inspect unpaved trenches after first rainy season following backfill.	X	X	X	X	X	Written report on status and any corrections required and completed.	Water Distribution; Sewer Collection; Facilities

Table 4.6

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
De-Watering Operations	To control potential pollutants from a non-storm water discharge .	Sediments	6.7a	Maintain on-hand stock of filter bags, fiber rolls and sand bags for unplanned incidents requiring sediment control.	X	X	X	X	X	Report annual inventory of supplies on hand and material orders.	Water Distribution; Sewer Collection; Facilities
		Sediments	6.7b	Maintain open purchase order with appropriate suppliers to expedite access to additional sedimentation control devices as needed.	X	X	X	X	X	Track approved purchase orders annually, maintain supplies to control all non-storm water discharges.	Water Distribution; Sewer Collection; Facilities
		Sediments	6.7c	Inspect service vehicles and warehouses annually to confirm appropriate inventory of materials on hand.	X	X	X	X	X	Number of service vehicles inspected annually; list warehouses inspected annually, achieve 100% preparedness.	Water Distribution; Sewer Collection; Facilities
Paving and Grinding Operations	To prevent discharge of sediments to storm drain.	Sediments	6.8	Install and maintain vacuum cleaning equipment on vehicles involved in cutting and grinding operations.	X	X	X	X	X	Complete annual inspection of all vehicles. Document date equipment inspected and compliance.	Water Distribution; Sewer Collection; Facilities; Streets
Construction Waste Management	To control sediments.	Sediments	6.9	Implement policy of no material piles left on street at end of workday.	X	X	X	X	X	Report if any material is left on street overnight. Achieve 100% compliance in non-emergency situations.	Water Distribution; Sewer Collection; Facilities; Streets

Table 4.6

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Spill Prevention and Cleanup	To control liquid spills of solvents, oils and fuels.	Hydrocarbons, automotive fluids	6.10	Have spill containment materials on service trucks and vehicles that support backhoes, loaders and graders.	X	X	X	X	X	Document and maintain spill kits readily accessible to all crews, contain all spills.	Water Distribution; Sewer Collection; Facilities; Streets
Storm Drain Inlet Cleaning	To remove pollutants from drains before rainy season.	Sediments, gross pollutants	6.11	Inspect all City inlets annually.	X	X	X	X	X	Number of catch basins inspected; yards of material removed.	Streets Operations Division
Inlet Filter Cleaning	Clean filters to ensure efficient filtering of pollutants.	Sediments, gross pollutants, hydrocarbons	6.12	Implement bi-monthly filter cleaning.	X	X	X	X	X	Number of filters cleaned; yards of material removed.	Streets Operations Division
Inline Storm Filter Maintenance	Clean inline filters to ensure efficient filtering of pollutants.	Sediments, hydrocarbons, gross pollutants	6.13	Implement 3 annual cleanings of inline filters.	X	X	X	X	X	Number of cleanings; gallons of waste disposed.	Streets Operations Division
Annex Yard BMP Maintenance	To ensure that all BMPs are properly maintained for maximum efficiency.	Sediments, nutrients, hydrocarbons, metals, gross pollutants, bacteria	6.14	Implement an inspection program of Annex Yard BMPs.	X	X	X	X	X	Daily inspection of BMPs. All BMP maintenance entered on daily inspection form.	Streets Operations Division

Table 4.6

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Street Sweeping	Remove sediments, trash, debris, green waste and floatables from the streets in order to prevent their entry into the storm drain system.	Sediments, nutrients, hydrocarbons, gross pollutants, bacteria	6.15a	Implement sweeping of City streets.	X	X	X	X	X	Curb miles swept; yards of material.	Streets Operations Division
		Sediments, nutrients, hydrocarbons, gross pollutants bacteria	6.15b	Addition of San Roque neighborhood.	X					Approve contract by City Council by end of permit year one.	Streets Operations Division
		Sediments, nutrients, hydrocarbons, gross pollutants, bacteria	6.15c	Addition of Hidden Valley neighborhood.	X					Approve contract by City Council by end of permit year one.	Streets Operations Division
		Sediments, nutrients, hydrocarbons, gross pollutants, bacteria	6.15d	Addition of Mesa neighborhood.	X					Approve contract by City Council by end of permit year one.	Streets Operations Division
Parking Lot Sweeping/Trash Removal	Remove trash and debris from public parking lots.	Sediments, hydrocarbons, gross pollutants, bacteria	6.16	Implement daily cleanup of parking lots.	X	X	X	X	X	Track hours spent sweeping/removing trash annually.	Parking Division
Parking Garage Washing	Remove oil and grease from garage surfaces.	Nutrients, petroleum hydrocarbons	6.17	Implement steam/power washing of parking garage floors, with full recovery of wastewater.	X	X	X	X	X	Track hours spent using wash & vacuum recovery system annually.	Parking Division

Table 4.6

Activity	Purpose	Pollutant of Concern	BMP #	Implementation Plan	Permit Year 1	2	3	4	5	Measurable Goals	Implementer
Integrated Pest Management	To minimize or eliminate use of pesticides and herbicides.	Pesticides	6.18	Implement IPM program.	X	X	X	X	X	Complete annual IPM report, document annual goals achieved.	Parks, Golf, Creeks, Airport, Waterfront, Public Works
Cleaning Trash Enclosures	To remove pollutants such as food, oil and grease that may be washed to storm drain.	Food oils and grease	6.19	Use only wash unit with full vacuum recovery for cleaning trash enclosures.	X	X	X	X	X	Report number of enclosure cleanings done annually.	Parking Division
Illicit Discharge Inspection and Elimination	To identify illicit discharges and other non-storm water discharges that can contribute to polluted runoff from City Facilities and to evaluate effectiveness of BMPs used.	Sediments, nutrients, hydrocarbons, gross pollutants, bacteria, pesticides	6.20	Implement an annual inspection of maintenance yards and shops, along with review of facility inspection reports, to identify and eliminate potential sources for polluted runoff.	X	X	X	X	X	Develop annual inspection schedule and estimated number of facilities to be inpsected, including; Corporation Yard, Annex Yard, Facilities Maintenance Shops, Motor Pool, Parks Yard, Golf Maintenance Shop, Cater Plant and Parking Garages. Report deficiencies and corrections.	Creeks Division, Parking Division
Place portable toilets adjacent to creeks	To help reduce human waste in creeks	Bacteria	6.21	Maintain contracts for the placement and service of portable toilets in areas adjacent to creeks that are known (or become known) for human use	X	X	X	X	X	Track the use and maintenance frequency of portable toilets that are placed adjacent to City creeks	Creeks

5.0 Santa Barbara Waterfront Department Minimum Control Measures

As a part of the City of Santa Barbara, the RWQCB is requiring that the waterfront operations be included under the City's NPDES Permit and that the Santa Barbara Waterfront Department (WFD) update its existing SWPPP to incorporate the six Minimum Control Measures identified in the City of Santa Barbara Storm Water Management Program (SWMP). This section outlines existing storm water management and enforcement activities, identifies where additional information can be obtained on existing programs, and presents additional actions and goals to comply with the six MCM's defined in the City of Santa Barbara's SWMP.

5.1 Waterfront Overview

The Santa Barbara Harbor (Harbor) is entrusted by the State Tidelands Act to the City of Santa Barbara and operated by the WFD. The Santa Barbara Waterfront is comprised of the harbor, Stearns Wharf, beaches, and seven parking lots. The Waterfront area extends from the west end of Leadbetter Beach to the easterly limits of East Beach in the vicinity of the Cabrillo Arts Pavilion. In the Harbor area, the four marinas, the boat launch ramp, the rock groin, the breakwater, and the sand spit are all included. The Waterfront area is approximately 241 acres, of which 167 is water, 27.8 acres are paved (including public access, parking areas, and maintenance/boat yards), 46 acres are beach and landscaping, and just over 1 acre is building coverage (see Waterfront map in Appendix B).

The Harbor is considered a "working harbor" with a viable commercial fishing industry. There are a total of 1,133 slips in the harbor with 13 percent used by commercial fishermen and 87 percent by recreational boaters and others. The commercial area includes 18 major buildings, all of which are under City ownership, with the exception of the Santa Barbara Yacht Club building (land is leased to the Yacht Club from the City). The Waterfront is a mixture of ocean-dependent, ocean-related, and visitor-serving uses including restaurants, shops, and limited office space (City of Santa Barbara, 1996).

Santa Barbara Harbor is a certified clean marina harbor, an award certification program for environmentally conscientious marinas administered through California Clean Boating Network (CCBN). CCBN is a California Coastal Commission programs which includes a collaboration of government, environmental, business, boating, and academic organizations working to increase and improve clean boating education efforts in California.

5.2 Waterfront Storm Water Management

As noted above, Santa Barbara is considered a mixed-use working harbor, and as such, has operated under a General Industrial storm water permit since 1997, issued by the Central Coast RWQCB. The existing storm water program at the harbor includes comprehensive monitoring, sampling, and report procedures, establishment and update of a Storm Water Pollution Prevention Plan (SWPPP), and preparation of an Annual Report. All of these materials are submitted to the RWQCB for review.

The Santa Barbara Waterfront Department (WFD) filed a Notice of Intent to the State Water Resources Control Board in August 1997 and requested coverage under the NPDES General Permit for Industrial Activities. As part of this action, a Storm Water Pollution Prevention Plan (SWPPP) was prepared and submitted to the Regional Water Quality Control Board. The objectives of a SWPPP are to: (1) identify and evaluate sources of pollutants that may affect the quality of storm water discharges and authorized non-storm water discharges as described in the General Permit Condition D.1 from an industrial site; and (2) identify and implement site-specific Best Management Practices (BMPs) to reduce or prevent pollutants associated with industrial activities from entering storm water discharges and authorized non-storm water discharges. The purpose of the SWPPP process - including the preparation of an Annual Report, quarterly dry season monitoring, rain event monitoring, and water quality sampling - is to monitor the effectiveness of existing BMPs and identify additional BMPs if needed. Based on the results of the Annual Report, which presents all results and recommendations for the monitoring year, the SWPPP is updated as needed to reflect changes to existing BMPs and/or identify additional BMPs. The Annual Report is submitted to the RWQCB each July for review, and a revised SWPPP is submitted when updates occur.

The SWPPP has been updated several times since its original filing including in 2000, 2002, 2003, 2004, and May 2005. In addition, an update is in progress to coordinate the Waterfront General Industrial Permit SWPPP with the City of Santa Barbara's small MS4 Storm Water Management Plan. Historically, updates have generally resulted from improvements of or additions to existing BMPs, and ministerial changes in tenant locations or ownership. Examples of implemented BMPs include the construction of overhead structures to cover waste oil disposal locations (at Marinas 2, 4, and the fuel dock), implementation of secondary containment requirements for all waste oil and oil bi-product drums (currently raised basins that drums sit inside to capture any spilled materials), secondary spill containment for the gas pumps at the fuel dock, and installation of infrastructure to capture non-storm water runoff from the boat yard and dry dock.

Additional Existing Plans and Policies

The Coastal Act includes goals and policies that apply to coastal areas of California and that strive to give priority to ocean-dependent uses in areas located near the coast. The Local Coastal Plan, prepared by the City of Santa Barbara pursuant to the Coastal Act, required development of a Harbor Master Plan to provide for the primary ocean dependent uses in Santa Barbara Harbor (and adjacent Stearns Wharf), including commercial fishing and recreational boating, as well as secondary uses such as ocean-related and visitor-serving uses.

The Harbor Master Plan was prepared in June 1996 by the City of Santa Barbara and includes several policies and recommendations related to maintaining or improving the water quality in the Harbor. Water quality testing was conducted in the Harbor from

1985 to 1989 with exemplary results, and testing was discontinued at the direction of State and County Environmental Health. Water quality testing resumed in 2001 and continues to take place during dry months (April – September) as part of the Waterfront Department's commitment to its Clean Water Program. Identification of potential sources of pollution into the waters of the Harbor is ongoing, and techniques to reduce pollutants have been implemented in the past including installation of waste oil stations, safer boat bottom paints, and public education (City of Santa Barbara 1996).

5.3 Best Management Practices

5.3.1 Minimum Control Measure 1: Public Education and Outreach

The following discussion outlines how the Waterfront Department meets and proposes to continue to meet the permit requirements through implementation of public education efforts as well as new public education programs throughout the five-year permit period.

1. Distribution of Water Quality Information via Brochures and Permanent Postings

The WFD currently conducts public education and outreach by providing informational brochures to Waterfront tenants and users (available at the Waterfront Department Administrative Offices, Harbor Patrol, and occasionally disseminated to slip holders). Informational brochures have been developed in conjunction with the Community Environmental Council, Coastal Commission, and Department of Boating and Waterways and include information on the WFD's Clean Marina Program. Although brochures are currently available to all users of the waterfront area, the WFD proposes to provide them to all existing slip holders and as a billing insert, once annually, as well as to all new slip holders. These brochures emphasize water quality regulations, clean water practices, prohibited practices, and enforcement activities. The WFD also provides this information to tenants of WFD property on an annual basis. Additional brochures are made available to the public at the business office and Harbor Patrol office.

Additionally, the WFD proposes to permanently post water quality information signs at the gates of all marinas to notify/remind slip holders of water quality standards within the waterfront area; postings will also serve to remind slip holders that the Santa Barbara Harbor is a certified clean marina harbor. The postings would be similar to signs that are currently in place at the launch ramp and would be consistent with the California Clean Boating Network standards. The postings would include an information and complaint telephone number.

2. Publication of "Docklines"

The Waterfront Department publishes "Docklines" three times per year, which is distributed to permittees of the harbor and includes current events and updated information on Waterfront Activities. The flyer includes a "Clean Marina Corner" section which is dedicated to information on water quality programs and issues affecting Waterfront use.

3. Coordination of Clean Water Information with Local Groups

The WFD proposes to coordinate with local agencies to disseminate Santa Barbara Harbor water quality information to a larger audience, including distribution of clean marina program updates on community websites.

A revised (as needed) informational brochure will be distributed to local water quality interest groups and other organizations annually.

4. Presentation of Waterfront Department Programs

WFD staff routinely makes presentations educating various organizations that conduct business at or otherwise use the Waterfront area on the BMPs and practices they can do to maintain the water quality of the Harbor. Historically, those organizations have included Channel Islands Marine Sanctuary, Maritime Museum docent program, Leadership Santa Barbara, Santa Barbara Yacht Club, and Santa Barbara Women's Business. Although this program has been administered informally in the past, the WFD proposes to formalize the presentation process and include a section on the WFD website notifying the public on when future presentations will be made and how to schedule additional presentations.

Additionally, the WFD makes use of the public attendance of the annual Harbor and Seafood Festival to educate attendees on current storm water pollution and prevention strategies. This is achieved through coordination with the Santa Barbara Channel Keeper and Heal the Ocean to set-up booths at the festival, providing information on water quality programs and storm water management within the waterfront area.

5. Provide a copy of the WFD General Industrial Permit to the City offices to be made available to the general public

The WFD General Industrial Permit and Annual Report is currently available at the WFD administrative offices and from the RWQCB. The WFD proposes to provide an additional copy to the City of Santa Barbara to be made available to the general public at the City planning desk.

Implementation of Public Education and Outreach

The WFD administrative staff is responsible for implementation of Public Education and Outreach Minimum Control Measure.

Measurable Goals

Goal 1: Distribute brochures to tenants and slip holders annually as part of billing statements and to all new slip holders. Years 1-5

Goal 2: Create postings for all slip entrances identifying existing water quality tips and regulations, and potential enforcement actions, using resources from

the California Clean Boating Network, and including an information and spill reporting telephone number. Years 2-5.

Goal 3: Include a copy of informational brochures supplied to Waterfront tenants and users on local environmental groups website's, including but not limited to the Community Environmental Council, Project Clean Water, and City of Santa Barbara. Years 2-5.

Goal 4: Formalize presentation process and identify presentation schedule and information number on WFD website. Ongoing, years 2-5.

Goal 5: Assess effectiveness through annual review of the program. Ongoing, years 1-5.

Goal 6: Expand program to interface with Regional Clean marina Programs. Years 3-5.

Goal 7: Publish and distribute "Docklines" three times per year. Ongoing, years 1-5.

Goal 8: Continue to coordinate with Santa Barbara Channel Keeper and Heal the Ocean to disseminate water quality information at their booths at the annual Harbor and Seafood Festival. Years 1-5.

5.3.2 Minimum Control Measure 2: Public Involvement/Participation

The following best management practices have been identified by the WFD to fulfill the MCM requirement for public involvement/participation in the WFD's water quality programs.

1. Discharge Ordinance

The WFD has conducted several forums on its Discharge Ordinance (17.16.010: Discharge of Contaminants into Harbor Waters Unlawful). The Discharge Ordinance is a key component of the Clean Marina Program and gives the WFD the legal authority to cite violators. The forums identify methods of conducting routine boat maintenance in a manner that greatly reduces or eliminates the discharge of anything into the harbor.

The WFD proposes to formalize the Clean Marina Program forum to occur annually and to post the schedule for future forums on the WFD website and advertise within the waterfront area.

2. California Clean Boating Network <http://www.coastal.ca.gov/ccbn/ccbndx.html>

The WFD is a participating member of the California Clean Boating Network – Central Coast. Members of the California Clean Boating Network (CCBN) believe that the contribution of pollution from boating to California's waterways can be significantly reduced by educating boaters about the impacts of boating and about environmentally sound boating techniques. *The Changing Tide* newsletter is the quarterly publication of the California Clean Boating Network (CCBN). The newsletter is dedicated to promoting clean boating practices in California by focusing on new trends in clean boating practices and environmental services for boaters.

The CCBN "Action Plan" proposes a number of projects which are aimed at reducing and educating boaters about the CCBN objectives, some of which have already been completed. Projects include:

- **Catalog of Marina and Boater Pollution Education Materials.** This catalog provides an easy way to obtain educational materials.
- **Documentation of Oil and Sewage Disposal Facilities**, and other environmental services in California marinas. Available on the website.
- **Point of Purchase Displays.** CCBN members have collaborated to educate boaters through information posted at marine supply shops.
- **Green Businesses.** This certification program will recognize marinas and underwater hull cleaning businesses which adopt best management practices.
- **Dockwalkers.** CCBN member organizations exert “pier pressure” by training boaters to teach other boaters to be better environmental stewards.
- **Boat Show Outreach.** CCBN members collaborate to provide education at boat shows throughout California.

3. Public Comment/Review

The WFD encourages feedback from the public on water quality issues that are of concern and has an open door policy that allows the public to submit comments on waterfront activities during normal operating hours (7:30 AM – 4:00 PM).

4. Outreach Education and Public Involvement

Periodically, the WFD is utilized as an environmental educational tool for local primary and secondary schools to learn about the interface of natural resources with industrial activities. This activity is generally implemented through the Santa Barbara Harbor Patrol. The WFD encourages the use of their facilities for such opportunities to educate students on how the WFD protects the integrity of the Harbor and the surrounding community. The WFD also utilizes the help of community groups/organizations to aid in various tasks around the WFD. These tasks include: trash pick-up, recycling pick-up, landscape work, etc. Relationships with these groups are intended to inform the public about WFD activities, not necessarily provide the WFD a service; therefore, the WFD does not require nor rely on these groups to perform WFD duties. However, the WFD supports the relationship with community groups/organizations and continues to inform them of needed help and newly identified tasks as they arise. The WFD proposes to formalize this program and establish a notification for local organizations on volunteer opportunities in the waterfront area.

Additionally, an annual volunteer day at the waterfront area is being planned: the First Annual Harbor Clean-up. This community volunteer event will focus on removing sunken trash from the bottom of the harbor and adjacent areas. Planning for this major event is in process.

Implementation of Public Involvement/Participation

The WFD is responsible for implementation of the Public Involvement/Participation Minimum Control Measures. The WFD holds forums and meetings with Waterfront users, specifically boaters, to explain the provisions of the Discharge Ordinance and Berthing Standards. Clean boating information is disseminated to boaters in collaboration with the California Clean Boating Network.

Measurable Goals

Goal 1: Annual reporting at the Harbor Commission. Ongoing, Years 1-5.

Goal 2: Regional Agency Coordination. The WFD is currently responsible to present all BMPs, monitoring activities, water quality sampling, and pollution citation logs to the RWQCB in an Annual Report and in a SWPPP (if updated with additional BMPs/regulations). This documentation is available to the public at the WFD administrative offices and at the RWQCB. Ongoing, Years 1-5.

Goal 3: Notify, at a minimum, 5 schools per year and 2 community groups to encourage local participation in educational activities involving the WFD. Increase the number of community groups/organizations or numbers of attendees each year through advertising or other means of announcements. Ongoing, Years 1-5.

Goal 4: Implement the first Annual Harbor Clean-up Day to encourage and engage the community with the BMPs adopted by the WFD and to encourage community groups to participate in maintenance activities involving the WFD. Years 3-5.

5.3.3 Minimum Control Measure 3: Illicit Discharge Detection and Elimination

The following discussion outlines how the WFD currently monitors and proposes to continue to meet the general permit requirements for illicit discharge detection and elimination BMPs. The following BMPs are prescribed under the existing General Industrial Permit and continue to be implemented, monitored, and reviewed as part of the SWPPP reporting process. The BMPs have been enforced in the past and will be enforced in the future by the onsite Harbor Patrol, as allowed under ordinance 17.16.10, and WFD administrative staff and their contractors. Logs, from daily monitoring by the Harbor Patrol, identifying warnings and citations issued for each reporting year, are included in the Annual Report and reviewed by the RWQCB annually. The program for identification and elimination of illicit discharge sources is comprised of the following parts:

- Site Map of Drainage Systems (Figure 1, Appendix C of the WFD SWPPP)
- Spill and Complaint Response for Non-Storm Water Discharges
- Field Investigation and Abatement
- Municipal Code Enforcement

1. Site Map of Drainage Systems

Identification of drainage patterns and discharge locations is important in detecting sources of illicit discharge. Maps of the entire area covered by the SWPPP are located in Appendix C of the WFD's SWPPP. The maps demarcate the drainage area patterns and associated storm water collection systems, discharge locations, and sampling locations to help identify potential pollution pathways, collection areas, and end-point entrance locations into the water-body of concern. These maps also identify the existing buildings, boat maintenance areas, rock groins, and harbor areas of the four marinas.

2. Spill and Complaint Response for Non-Storm Water Discharges

- An Outline of Hazardous Material Spill (oil and gas) Reporting Procedures is included the Emergency Response Plan (ERP) for the waterfront area and in Appendix E of the WFD SWPPP. First response procedures for spills include the immediate booming/absorption of materials within the harbor and notification of Santa Barbara Harbor Patrol, U.S. Coast Guard, Santa Barbara County Environmental Health, and California Office of Emergency Services. All WFD staff are familiar with the ERP and its location; however, as a general rule, Santa Barbara Harbor Patrol are the first responders to the site and execute response and notification procedures. A warning and citation log, including response activities, is included in the Annual Report. These Procedures would continue to be implemented and enforced by the WFD and the Harbor Patrol.

- The WFD ensures that appropriate material handling procedures and storage requirements are employed as required by the General Industrial NPDES permit and outlined in Section B of the WFD's SWPPP. These procedures and storage requirements are formally monitored quarterly during the dry season and monthly during the wet season as part of the SWPPP monitoring process. Procedures are also monitored daily by the Harbor Patrol as part of routine inspections.

- The WFD has identified procedures for spill clean-up and educates staff and tenants about these procedures through distribution of informational brochures (outlined in MCM 1). Harbor Patrol is the first contact for spill response and is responsible for notifying other agencies and organizations as appropriate. Harbor Patrol maintains booms, absorbent pads, and other containment equipment to immediately respond to spills. Appropriate spill clean-up equipment is available in accessible areas to WFD staff and tenants as required by section 8.0 of the SWPPP.

- Report spills in accordance with federal, state, and local regulations as required by the General Industrial NPDES permit, ERP, and outlined in Section B and Appendix E of the WFD's SWPPP.

- The WFD is committed to responding to tenant and public complaints, including those associated with illicit discharges. Harbor Patrol enforces SBMC onsite 24 hours a day, seven days a week, and all citations and warnings issued to violators are recorded in a pollution control log. Harbor Patrol and WFD offices

are located onsite at Santa Barbara Harbor and complaints can be filed in person or by phone. Harbor Patrol responds to all complaints and, if appropriate, issues warnings and citations to violators. Water quality packets are also issued to the violators. Repeat offenders are cited, which imposes a fine and/or lose their slip permit privileges.

- The WFD will post spill complaint information in general public areas, including the wharf, the harbor and parking lots. The Harbor Patrol telephone number will be included on all outreach materials.

3. Field Investigation and Abatement

- As part of the existing storm water management program, the WFD has identified areas of potential illicit discharge and monitors these discharge points (1) during monthly wet season monitoring; (2) quarterly throughout the year independent of a rain event; and (3) daily as part of Harbor Patrol activities. The findings from the monitoring efforts are disclosed in the WFD Annual Report as required by the WFD SWPPP (section B) in the form of warning and citation logs, all monitoring and response activities, and quality control of existing BMPs including the proposal of additional BMPs as needed.

- The WFD monitors and documents non-storm water related leaks and spills in the Waterfront or surrounding property throughout the year that are reported by the Inspector in accordance with the General Permit and the SWPPP (similar to those procedures described above). Documentation of monitored leaks and spills are disclosed in the WFD Annual Report as required by Section B of the WFD SWPPP.

- The WFD educates and enforces discharges and potential discharges to eliminate risk of illicit discharge into the harbor. The NPDES permit for the WFD requires annual employee training and tenant awareness: informing tenants and personnel of spill prevention and response, good housekeeping, and material management practices. These issues are distributed at informational sessions, employee and tenant meetings, notices, and through informational brochures.

  As part of MCM 1, the WFD proposes to formalize the education and information process, by providing permanent postings, and establishing a Clean Marina Program forum schedule for tenant and slip holders.

- Enforcement of existing ordinances related to water quality and accident prevention within the harbor area is ongoing as part of Harbor Patrol responsibilities. Enforcement includes the issuance of warnings and citations, as well as routine monitoring and follow-up monitoring, support for water quality sampling, and notification of relevant agencies and organizations for spill response. The following table outlines spill response procedures for the waterfront area as presented in the ERP.

Hazardous Material Spill (Oil-Fuel-Sewage-Hazardous Materials)
Emergency Action Checklist (Example)

DATE	TIME	ACTION
		Determine the type, origin, and extent of the spill. Update the evaluation periodically.
		Notify the lead, supervisor, manager, or Waterfront Director of the event.
		Notify: 1. Harbor Patrol at 564-5530. Harbor Patrol will make the following notifications. 2. City Dispatch for Fire and/or Police as needed 897-2410 or telephone 911 3. City Public Works for sewage spills from sewer lines or facilities 564-5413 4. CA/OES (California State Office of Emergency Services) 800-852-7550 5. NRC (National Response Center-USCG) 800-424-8802 6. County Environmental Health 681-4900 (bus.,M-F) or 692-5723 (24-hr. dispatch) 7. USCG LA/LB for Marine Safety Detachment notification 310-732-2000 8. Fish & Game 909-597-9823
		If possible, prevent further contamination, attempt to stop spill at the source and deploy containment booms and absorbent pads.
		Notify the Santa Barbara Police Department if crowd/traffic control is needed.
		If the spill is offshore, refer to the Offshore Oil Spill Incident Plan (separate document).

Additionally, the following language is presented with the spill response procedures in the ERP:

In the event of a large hazardous materials incident refer to the checklist on the following page (*from the ERP*).
Spills can be on land, on water, or on both. The source may be natural seeps, vessels, offshore drill rigs, plane crash, or land-based pollution.
The effects of a major spill can be:

- Fire danger;
- Air pollution;
- Contamination of water, land, air, docks, and vessels; and
- Damage to wildlife.

The agencies in charge of the control and clean up are the United States Coast Guard, County of Santa Barbara, and the City of Santa Barbara Hazmat Team. The California Dept. of Fish & Game should also be notified.

To minimize the danger of fire, ignition sources should be secured; electrical service off, smoking prohibited and cell phones turned off.

If the spill emanates from the fuel dock, the fuel line valves should be immediately turned off. The shut-offs are located on the City Pier next to the fuel dock, under the base of the City Pier and inside the fuel dock control boxes in Harbor Way near the Harbor Maintenance office/workshop. The valves under the base of the City Pier are only accessible by boat.

If heavy fumes develop, the area should be evacuated of people.

- Harbor Patrol performs routine daily inspections of the WFD for illicit discharges and maintains a Watch Log and Pollution Warning Log to record any pollution incidents, warnings, and/or citations. These logs are presented in the Appendix D of the Annual Report.

4. Municipal Code Enforcement

The Santa Barbara Municipal Code (SBMC) and associated City of Santa Barbara-Waterfront Department Marine Rules and Regulations (under SBMC 17.20.005 (J)(5)), provide enforcement authority for illicit discharges, which are enforced by the Harbor Patrol. Authority for detection and elimination of illicit discharges and illegal connections are referenced or described in the following Municipal Codes and regulations:

SBMC Title One Administrative Code Enforcement Procedures necessitate issuing a warning before any fines can be levied. Fines range from $100 for the first violation to $250.00 for the third violation occurring within a twelve-month period. The fine is a lien against the real property.

SBMC Title Fourteen Water and Sewers, Natural Watercourses and Storm Drain System regulates work and other activities within the creek channel. This title prohibits dumping in creeks/channels, or allowing any obstruction to a creek or channel or dumping in a creek/channel, and prohibits any un-permitted grading, fill or stream bed alteration without a permit.

SBMC Title Sixteen Liquid and Industrial Waste Disposal was adopted to protect the waters of the State; provide against pollution of streams, creeks and storm drains; control and regulate discharges to storm drains; and to control and regulate all discharges of waste or wastewater directly or indirectly into the sewage system and treatment and disposal works of the City of Santa Barbara.

The WFD has also adopted the following ordinance and enforces it through daily monitoring by Harbor Patrol, monthly monitoring during the wet season and quarterly monitoring during the dry season by an independent environmental consulting company. Any violation of the ordinance is recorded and responded to within 24 hours of detection, proceeded by follow-up inspections:

17.16.10 Discharge of Contaminants into Harbor Waters Unlawful

> It is unlawful for any person to discharge, either directly or indirectly, any pollutant or contaminating substance or material, including rubbish, trash, litter, sewage, or refuse of any kind into the waters of the Santa Barbara Harbor. The terms "pollutant" or "contaminating substance" also includes ballast water, bilge water or waste water containing or contaminated with any paint, varnish or other insoluble products in a liquid state. The terms "pollutant" or "contaminating substance" shall not include "wash down water", engine discharge or exhaust gas or substances normally contained in such discharges or exhausts, or galley sink, shower or hand basin water. (Ord. 5282, 2003; Ord. 4757, 1992: Ord. 3482 §1, 1971; prior Code §24.20.)

Santa Barbara Waterfront Department- Marina Rules and Regulations (Enforceable Under SBMC 17.20.005 (J)(5)). Discharge of pollutants in the harbor is prohibited. Use oil absorbent materials in the bilge. Dispose of solid and liquid waste properly. Use of non-biodegradable soaps and disinfectants in vessel washdown water is prohibited.

5. Clean Marina Program

In addition, procedures and policies outlined in the Clean Marina Program are enforced by WFD staff in an effort to ensure good water quality throughout the Waterfront.

Enforcement of existing policies and ordinances is crucial to the effort of maintaining water quality in the Waterfront. Primary enforcement duties are provided by Harbor Patrol officers, which are located onsite at the Waterfront Department. Identification and enforcement of illicit discharge violations is one of the primary responsibilities of Harbor Patrol and occurs 24 hours a day, seven days a week. Officers monitor, identify,

issue warnings, and cite violators following Titles 1, 14, and 16 of the Santa Barbara Municipal Code (Section 5.3.3). Incidents are recorded in a pollution control log and the incident log which records all Harbor Patrol activity. Officers provide routine daily inspections of the WFD, respond to calls received, and coordinate with appropriate agencies to identify and eliminate spills. Officers routinely enforce water quality ordinances through warnings and citations (warnings, citations and calls are logged and copies for each year are included in the Annual Report). In addition, administration of a storm water management program at the harbor is required under the existing General Industrial Permit. The program includes storm monitoring throughout the wet season; water quality testing for metals, oil and gas, total suspended solids, MBAS, pH, specific conductance; reporting and monitoring for BMP effectiveness; spills and non-compliance; dry condition monitoring (quarterly throughout the year); and an Annual Comprehensive Site Evaluation. All results are included in the Annual Report and submitted to the RWQCB for review. Illicit discharges are reported to the Harbor Patrol and/or the WFD and are disclosed in the WFD's Annual Report.

Harbor Patrol:	(805) 564-5530
Fire Department:	(805) 965-5254
Environmental Health:	(805) 681-4949

Implementation of Illicit Discharge Detection and Elimination Minimum Control Measures

Implementation of the illicit discharge and elimination of minimum control measures is the primary responsibility of the Harbor Patrol officers. When illicit discharges occur, they are corrected by explaining the Discharge Ordinance violation and appropriate BMPs to eliminate the discharge. Explanation of the Discharge Ordinance and appropriate BMPs to eliminate the discharge is usually adequate. Violations are tracked and monitored by the Harbor Patrol. All violations are also presented in the Waterfront Department's SWPPP Annual Report. Formal enforcement cases are rare but occur when a violator repeatedly creates an illicit discharge and does nothing to eliminate it. Violators are cited and fined according to the Santa Barbara Municipal Code.

Measurable Goals

Goal 1: Review and update the Clean Marina Program annually. Ongoing, years 1-5.

Goal 2: Assess effectiveness of Discharge Ordinance and Clean Marina Program. This assessment is performed through the routine inspections and analyses of the Watch Log and Pollution Warning Log performed by the Harbor Patrol and WFD administrative staff. Ongoing, years 1-5.

Goal 3: Respond to 100 percent of all complaints/detection of illicit/illegal discharge within 24 hours of receiving the complaint/detection. Perform follow up inspections on 100 percent of these cases to ensure elimination of the discharge. Ongoing, years 1-5.

Goal 4: Review Harbor Patrol warning and citation logs for illicit discharges and coordinate implementation of additional BMPs as necessary. Monitor and improve existing BMPs as needed as part of existing monitoring requirements. BMPs are monitored and evaluated monthly during the wet season (physically during rain events) and quarterly year-round in dry conditions as part of the Annual Site Evaluation, and SWPPP Annual Reporting requirements. Ongoing, years 1-5.

5.3.4 Minimum Control Measure 4: Construction Site Storm Water Runoff Control

The existing General Industrial Permit covers operations within the Waterfront area. Construction within the Waterfront area is considered an independent action and is permitted and managed under the purview of the Public Works Department and therefore regulated under the City of Santa Barbara's NPDES Storm Water Management Plan (Appendix A: Erosion/Sedimentation Control Policy). No substantial construction would likely occur because the waterfront area is generally built out and no expansion is proposed. Should construction occur in the form of remodels/redevelopment within the waterfront area, construction BMPs would be implemented through the Public Works Department following requirements outlined in the SWMP. Enforcement of post-construction BMPs would be conducted through existing daily monitoring at the waterfront by Harbor Patrol and through existing storm water management program monitoring protocols. Any operations associated with redevelopment and new construction would be managed under the existing General Industrial Permit and in the event that redevelopment/new construction changes the general uses of the waterfront area (very unlikely), the SWPPP will be revised to incorporate the new programs.

5.3.5 Minimum Control Measure 5: Post-Construction Storm Water Management in New Development and Redevelopment

See MCM 4.

5.3.6 Minimum Control Measure 6: Pollution Prevention/Good Housekeeping for Municipal Operations

The following discussion outlines how the WFD proposes to meet the NPDES industrial general permit requirements for pollution prevention/good housekeeping best management practices. Identification of the location of potential pollution-causing activities and sources enables the WFD to keep track of likely sources of pollution in the harbor. Waterfront Department staff and Harbor Patrol are located onsite and coordinate the monitoring, review, and enforcement of potential pollution causing locations and existing BMPs. In addition, scheduled monitoring sessions for both rain events and dry periods occur throughout the year, conducted by a private environmental consulting firm to manage and review existing BMPs, monitor water quality, and identify potential discharge locations within the Waterfront area. The BMPs listed below minimize the potential for unauthorized discharge into the storm water drainage system.

1. Identification of Significant Materials (Section 5.0 of Section A of the WFD's SWPPP)

The following is a list of significant materials handled and stored at the Santa Barbara Harbor:

- Fuel Oil — Both unleaded and #2 diesel fuel oil are stored in four underground storage tanks with 10,000-gallon capacity each. Fuel is pumped via double-walled pipelines under the City Pier to the fuel dock for distribution to the general public. Approximately 8,000 to 9,000 gallons of fuel are delivered every 3-4 days, averaging 70,000 gallons per month.

- Waste Oil — Two 255-gallon, double-walled, above-ground storage tanks are located on the shore outside of the entrances to Marinas 2 and 4 to collect the waste oil from Harbor tenants. These locations have overhead structures and are covered from all storm water runoff. Waterfront Department staff check fill levels in the tank daily to ensure there is no overfill. Waste oil is automatically picked up every 2 weeks for recycling by a local vendor (or pick up is arranged when tanks reach 90 percent capacity).

- Other Materials — Other materials that are stored at the fuel dock and used for distribution to the general public include the following:

Onshore Material	*Maximum Capacity*
Motor Oil	760 gallons in 55-gallon containers
Waste Oil	300 gallons in 300-gallon container
Used Oil Filters	200 each
Waste Batteries	10 each

Also, materials including parts, solvents, soaps, etc. are stored in storage lockers at the City's maintenance yard, the boat yard, and the dry dock in 1-gallon containers, with less than 55 gallons total at any site. The U.S. Coast Guard also has two storage lockers (appropriately labeled for hazardous materials contents) outside of their Marine Safety Division building (111 Harbor Way) that contain paints, solvents, fuels, lubricants, waste oil, and other materials for maintenance of their boats and equipment. All storage lockers are sealed containers with lips which act to divert rain and provide secondary containment for stored materials. The maximum amount of materials kept in these lockers is 150 gallons, mostly in 1-gallon or 5-gallon containers plus two 55-gallon drums with secondary containers for waste oil associated with boat maintenance.

2. Identification of Potential Pollution Sources (Section 6.0 of Section A of the WFD's SWPPP)

Industrial Processes

The onshore industrial activities at the Harbor include boat maintenance, harbor maintenance, and routine engine maintenance operations. Areas where these activities occur include the Waterfront Department's Harbor maintenance yard, the Harbor Marine Works boat yard, and the boat storage yards associated with the Yacht Club and Sailing Club. The activities include sanding and painting of boat hulls, engine repair and maintenance, and general maintenance (such as sign painting, woodwork, etc.). All of these areas are located adjacent to each other in one portion of the site. There is one storm drain system, drainage A, servicing all of the boat maintenance areas. Flow from these areas during non-storm water discharge is collected, treated through a three-stage clarifier pretreatment system, paper filter (90 ft^2), and interceptor (oil/water separator), then pumped into the local sewer system. When flows from storm events occur, the sewer system is bypassed and flows are discharged to the ocean through the drainage system.

There is also a boat maintenance operation, the Santa Barbara Dry dock, located in Marina 1F. The maintenance shop at the dry dock is covered and all storm water is diverted away from the areas where the majority of the maintenance activities occur and materials are stored. The dry dock itself can hold one boat at a time out of the water for bottom buffing and repainting. The areas are kept clean and dust free and no work is conducted during rain. Tarps are present around the dry dock and can be rolled down to prevent dust from going into the Harbor or onto neighboring boats. All materials are stored in lockers or other covered areas with secondary containment structures.

Material Handling and Storage Areas

Areas that include storage and handling of materials in any significant quantities include the fuel dock fuel storage tanks and waste oil storage tanks at Marinas 2 and 4 (refer to Map C-3 in Appendix C of the WFD's SWPPP). The transfer of fuel oil and waste oil is monitored constantly by designated personnel. In addition, the fuel dock has several types of lubricants, waste oil, and batteries stored at the operations site located at the end of the City Pier (refer to the site maps in Appendix C of the WFD's SWPPP). The fuel pumps themselves are outside, with the nozzles kept in a box for secondary containment. Additional information with regard to operations at the fuel dock is included in Appendix D of the WFD's SWPPP, including spill response plans and procedures, hazardous material inventory sheets, and employee training.

The Waterfront Department staff and tenants (the boat yard, the dry dock, USCG) use various industrial and consumer products (such as paints, solvents, soaps, etc.) for boat and general maintenance activities. These products are kept in small quantities (mostly 1-gallon containers) and stored in enclosed, fire resistant lockers or sheds that contain the enclosed materials as a secondary container and are not susceptible to rainfall or runoff. The general boating public also use materials (such as paints, solvents, soaps, lubricants, etc.) to maintain the boats in the slips. Each boater is responsible for

maintaining good housekeeping practices while in the marina, including proper handling of materials as detailed below in the good housekeeping BMPs. Except for the waste oil storage tanks (subject to the Material Handling and Storage BMPs below), there are no storage facilities available to the public within the Harbor property.

In the unlikely event of a leak or spill, the Waterfront Department has instructions that identify required action (Appendix E of the WFD's SWPPP).

Dust and Particulate-Generating Activities
As previously mentioned above under industrial activities, dust-generating activities at the Harbor include boat and general maintenance, such as sanding. The Santa Barbara Harbor is a high public use area that is often subject to windy conditions, due to proximity to the ocean. Air quality standards and public protection and comfort dictate that dust control measures are employed. The Harbor Marine Works boat yard, where the majority of commercial boat work is conducted, is required to use vacuum sanders that control nearly all of the dust from this activity.

Significant Spills and Leaks
There have been no recent significant spills or leaks associated with Harbor operations. There was one spill of 40 gallons of fuel oil associated with the fuel dock in 1994 (a copy of the incident report is included in Appendix D of the WFD's SWPPP). On occasion, oil sheen on the water surface has been observed and reported to the Waterfront Department. These are treated as minor, untraceable spills and are logged by the Waterfront Department and reported to the USCG Marine Safety Division. It is likely that this sheen is from routine use of diesel vessels and the sheen usually dissipates within a short period.

Non-storm Water Discharges
The boat slips in the marinas are included under transportation-related industrial activities, covered under the WFD's NPDES General Industrial permit. Potable water is available for rinsing the boats in the slips. In most cases, boats are rinsed with fresh water to remove sea water and periodically soaps or mild detergents (biodegradable products are used according to tenant surveys, refer to Appendix B of the WFD's SWPPP) are also used for wash down. The incidental use of the biodegradable soaps is authorized under the General Industrial Permit (Revised 2007). Additionally, Clean Marina Program signs are posted at the launch ramp encouraging users to use appropriate low-impact soaps.

Other non-storm water discharges in the Harbor property include washing of Harbor maintenance vehicles (cars and trucks) at the City's maintenance yard, rinsing of recreation equipment including kayaks and SCUBA gear associated with commercial activities, steam cleaning of paved surfaces, and occasional discharge of small quantities of water or ice associated with the Fish Market. It is not feasible to reduce or eliminate all of these non-storm water discharges if the Harbor is to maintain its current use operations. However, BMPs identified below include the reduction of these non-

storm water discharges and, at a minimum, the reduction of potential pollutants associated with these non-storm water discharges.

Restaurant operations in building 117/119
The operations in building 117/119 include washing of kitchen mats outside and storage of used kitchen grease. A trash enclosure was constructed in 2000. Wash water from the kitchen mats is now diverted into the City's sewer system. Used kitchen grease is stored in a drum placed on a secondary container in the trash enclosure; however, it is not in significant quantities.

Trash collection sites
Several waste receptacles are present throughout the site. These are emptied on a regular basis, and trash is not allowed to accumulate on the sites. The Harbor is a public area and all efforts are made to ensure that visitors have a positive experience. Waste receptacles are a potential source of pollution, especially if improper dumping of hazardous materials occurs. Trash receptacles and the areas around them are included in the routine daily visual inspections to ensure that good housekeeping practices are employed and there is no illegal dumping of hazardous materials.

The following table is a summary of the industrial activities within the Santa Barbara Harbor and potential pollutant sources and BMPs to minimize the pollutant release into the Harbor.

Activity	*Pollutant Source*	*Pollutant*	*BMP**
Fuel Dock and Underground Storage Tanks			
Filling of underground storage tanks; boat fueling	Spills	Fuel oils	• Monitoring of fueling operations (good housekeeping) • Installation of secondary spill guard features around all fuel pumps (completed 2003)
Materials handling and storage	Spills and leaks	Fuel oil, motor oil, waste oil, battery acid	• Proper handling and storage techniques (good housekeeping) • Installation of overhead coverage in areas exposed to rainfall including oil storage facility and battery recycling location (completed 2003) • Establish and enforce use of secondary containment for all used oil storage drums (completed 2002)
Waste Oil Collection Stations			
Materials handling and storage	Spills and leaks	Waste oil	• Monitoring of transfer operations • Regular removal of waste oil • Ensure areas are kept clean (good housekeeping) • Overhead covers installed at both locations (Marina 2 and 4), (completed 2003)

Activity	*Pollutant Source*	*Pollutant*	*BMP**
City Maintenance Yard, Boat Yard, Dry Dock, USCG building 111, Stearns Wharf			
Boat maintenance	Spills and leaking containers	Paints, solvents, lubricants	• Good housekeeping techniques • Installation of non-storm water collection system for boat yard (completed 2005) • Collection of non-storm water discharge from dry dock
Boat washing	Spills and leaking containers	Soaps, disinfectants	• Good housekeeping techniques and use of only biodegradable soaps.
Storage	Spills and leaking containers	Paints, solvents, lubricants, soaps, disinfectants	• Good housekeeping techniques (including proper maintenance of storage areas, sweeping, routine checks) • Cover all trash bins and all hazardous materials (completed 2003) • Enforce use of secondary containment for all used oil storage drums (completed 2002)
Restaurant Maintenance (in Outside Areas)			
Used kitchen grease storage	Spills and leaks	Used kitchen grease	• Move storage to areas that have installed overhead coverage and diversion system (i.e., berms) to prevent drums from being exposed to rain and, if drums are damaged or leaking, prevent grease from going into the storm water system • Cover all trash bins and all used oil drums (completed 2002) • Enforce use of secondary containment for all used oil storage drums (completed 2002)
* Best Management Practices (BMPs) are described in detail below.			

The following items in this section address baseline Best Management Practices (BMPs) applicable to all Santa Barbara Harbor tenants and WFD staff. All tenants shall conform to the following general BMPs to ensure coverage by the Santa Barbara Harbor General Industrial Permit. All tenant areas are monitored daily by Harbor Patrol as well as monthly during the wet season and quarterly during the dry season by an independent environmental consulting firm, as part of the existing storm water management program.

General BMPs (Section 8.0 of Section A of the WFD's SWPPP)

Good Housekeeping
Good housekeeping requires the maintenance of areas that may contribute pollutants to storm water discharges in a clean, orderly manner.

- Tenants are required to maintain dry and clean ground surfaces by using brooms, shovels, or vacuums. The main harbor and west harbor are swept daily and the others are swept bi-monthly during winter and weekly during summer, by WFD staff, to minimize buildup of dust and trash.

- All trash receptacles are required to be tightly closed and secured and monitored during routine daily and monthly inspections.

- Regular pickup and disposal of garbage and waste material is scheduled.

- WFD staff regularly change the absorbent pads (daily, weekly, bi-weekly, or monthly as necessary) that line the floors of waste storage areas.

- WFD staff routinely inspects for and repairs leaks or conditions that could lead to discharges of chemicals or contact of storm water with potential pollutants.

- Tenants, boaters, and staff are required to only use EPA-approved biodegradable soaps and disinfectants in areas where wash-water discharges directly into the receiving water. The use of non-biodegradable soaps and disinfectants is prohibited in areas where wash-water discharges directly into the receiving water. Sampling results associated with SWPPP requirements are reviewed by the RWQCB to determine if there are significant quantities of pollutants contained in the discharge associated with these activities. If sampling results in elevated levels of contamination due to this discharge, further steps will be taken to minimize the impact from this discharge.

- Ensure that spill cleanup procedures are understood by employees and tenants and that spill cleanup equipment and materials are readily available. Routine daily inspections performed by the Harbor Patrol and routine monthly inspections performed by WFD staff and/or independent consultants (Section B of the WFD SWPPP) have and will continue to ensure that employees and tenants adhere to the spill and cleanup procedures.

Preventative Maintenance

- Storm water infrastructure (catch basins, grates, outfalls) is routinely monitored on a monthly basis as part of SWPPP monitoring and reporting activities.

- Records of inspections of equipment, and systems are maintained and provided in Attachment A, Forms 3, 4, and 5 of the Annual Report.

Spill Prevention and Response

- Areas where spills may occur onsite, and their drainage points, are identified above under *Identification of Potential Pollution Sources*. Routine daily inspections performed by the Harbor Patrol and routine monthly inspections are performed as part of the existing SWPPP storm water management program (Section B of the WFD's SWPPP), to ensure that spills are prevented and/or responded to accordingly.

- The WFD ensures appropriate material handling procedures and storage requirements are employed through monitoring efforts. Should a spill occur, WFD is required to be prepared to respond accordingly. The WFD is educated through an annual review of response procedures outlined in Appendix E of the SWPPP.

- Procedures for cleaning up spills at the fuel dock are located in Appendix D of the WFD's SWPPP and procedures for spill cleanup and reporting for other locations is outlined in Appendix E of the WFD's SWPPP. Staff and tenants are informed about these procedures as described in MCM 3. Appropriate spill clean-up equipment is provided in areas that are accessible to staff and tenants.

- The Waterfront Department has Hazardous Materials Spill (Oil and Gas) Reporting Procedures that are included in the site ERP and Appendix E of the WFD's SWPPP.

- Leaks and spills in the Harbor or surrounding property are documented and reported by the Inspector in accordance with the General Industrial Permit and are documented in Attachment D of the Annual Report.

Material Handling and Storage

- All containers are appropriately labeled to show the name, type of substance, stock number, expiration date, health hazards, suggestions for handling, and first aid information.

- All hazardous materials that require special handling, storage, use and disposal considerations are clearly marked.

- Containers are stored according to manufacturer's instructions to avoid damaging the containers through improper weight distribution. The containers are stored away from direct traffic routes to prevent accidental spills.

- Containers are stored above the ground or in secondary containers to prevent corrosion that can result when containers come in contact with moisture on the

ground. Any containers that show signs of rust or other damage are removed or replaced.

- The use of secondary containment pallets (spill grates) for all waste storage drums that are not double-walled are utilized and inspected monthly by an independent environmental consultant (Section B of the WFD's SWPPP). The floors of waste storage areas are lined with absorbent pads to retain potential spill material.

- An inventory is maintained of all hazardous materials kept on site in significant quantities with the potential to leak or spill into the drainage system or into areas that may be exposed to storm water. All chemicals/materials that are old or have exceeded their expiration dates are disposed of properly.

- Areas are covered where pollution causing substances, such as oil, used oil, paint, solvents, cleaning materials, mechanical parts, etc. are stored on site. These areas are inspected routinely (monthly) by an independent environmental consultant and daily by Harbor Patrol to ensure that the structures are in good working condition. These structures are also inspected during rain events to ensure proper function.

Waste Handling/Recycling
Solid waste disposal and recycling is accomplished through the municipal waste handling system. The waste oil (from waste oil collection tanks at Marinas 2 and 4) is periodically picked up by a local vendor (Black Gold, see Appendix B of the WFD's SWPPP). Hazardous material containers (such as paint, solvents, fuels, etc.) are disposed in compliance with the law.

Record Keeping and Internal Reporting
The WFD Inspector documents and records all inspection and maintenance activities. A tracking and follow-up procedure is utilized to ensure the appropriate response has been taken. The Inspector uses the forms or other methods for this purpose (see Appendix F of the WFD's SWPPP). Incidents such as spills or discharges, other than storm water or authorized non-storm water, are included in the records. Records of all storm water monitoring information and copies of all reports, including the Annual Report, are retained for a period of at least five years from the date of the sample, observation, measurement or report. Reporting documentation is public information and is available upon request by the WFD.

Inspections
In addition to the preventative maintenance inspections described above and the inspections identified above, quarterly non-storm water inspections, monthly wet season inspections, and storm water sampling inspections for areas identified as potential sources of pollutants are performed (Section B of the WFD's SWPPP). These areas include the maintenance yard, boat yard, underground storage tank area, waste oil collection sites, trash enclosure outside of building 117/119, the water surface in the Harbor and other areas that have the potential to contribute sources of pollutants to

storm water discharges. In addition, the Inspector monitors the following on a daily basis:

- The pipe system delivering fuel from the underground storage tanks to the fuel dock is inspected for leaks.

- The storage areas associated with fuel dock operations (i.e., waste oil, oil filters, batteries) are inspected for signs of leaking and the potential to be exposed to storm water or storm water runoff. If there is the potential for pollutants to be exposed to rainwater, then means are employed to cover the exposed areas or otherwise divert the storm water from the potential source of pollutants.

- Hazardous materials storage lockers are inspected to ensure that watertight conditions are maintained. Signs of leaking storage lockers shall be noted and appropriate actions taken. Signs of spilled containers inside the storage lockers shall also be noted.

- Trash bins are inspected for signs of leaking. If a leak, other than water, is discovered, the material that is leaking is identified and the leak is contained immediately until measures to fix the leak are taken. If improper dumping is discovered (such as paints, solvents, fuels, etc.), the source is identified and appropriate action is taken to eliminate the problem.

A tracking and follow-up procedure is utilized and provided in Attachment D of the Annual Report to ensure appropriate response has been taken. Records of all inspections will be maintained.

Quality Assurance
The inspection and record keeping procedures are intended to ensure that all elements of the SWPPP (Section A of the General Permit) and Monitoring and Reporting Program (Section B of the General Permit) are adequately conducted.
Structural BMPs (Section 8.0 of Section A of the WFD SWPPP)

Overhead Coverage
Structures that provide coverage of material are used to divert storm water and authorized non-storm water from potential sources of pollutants. Overhead coverage has been installed for the following areas:

- Hazardous materials storage — Hazardous substances (such as paints, fuels, lubricants, solvents, etc.) at the boat and maintenance yard are stored in fire-resistant lockers with watertight tops and lips at the bottom that act as secondary containment. If future inspections determine that these lockers are not adequate for the amount of materials being stored, or are not maintained properly, then covering the area where these lockers are stored will be considered as a precautionary measure.

- Waste receptacles and storage areas — Tenants with trash bins are required to have covers that, when kept closed, are capable of diverting storm water. Having a

sufficient number of waste receptacles with adequate lids that are to remain closed eliminates this potential source of pollutants. Tenants may also locate waste receptacles under roofs or install an overhang over the areas where the waste bins are kept to meet this requirement.

These structures are inspected on a monthly basis, by an independent environmental consultant, and during storm events to ensure all structures are performing properly. If inspections find a structure in need of repair/replacement, this information is reported to the WFD and/or Harbor Patrol. Subsequent inspections ensure that the structure in need of repair/replacement is conducted.

Secondary Containment Structures
Containment structures around storage tanks or other potential pollutant sources are required for the purpose of collecting leaks and spills, shall they occur.

- Hazardous materials storage — Storage lockers at the City maintenance and boat yard and USCG building have lips at the bottom that act as secondary containment. If it is determined during routine inspections that this system is not adequate for the amount of materials being stored, or does not adequately contain spills and leaks, then placing lockers in an area that could be enclosed in a berm may be suitable.

- Secondary containment structures are already in place for the waste oil stations associated with Marinas 2 and 4. The oil storage facility on the pier is covered and the drums are all contained on secondary structures. The used oil drums in the trash enclosure behind buildings 117/119 are also contained in secondary structures. The underground storage tanks associated with the fuel dock have secondary containment as required.

Treatment
Treatment systems that reduce the pollutants in storm water discharges may be appropriate for some of the drainage areas associated with the Harbor. Treatment control BMPs includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, and others. Of these, the only treatment methods that would be compatible with operations at the Harbor are infiltration devices and oil/water separators, due to available space constraints and location.

- *Infiltration devices.* An infiltration device or sediment trap is already in place in the boat yard which filter sediments associated with runoff from the maintenance yard and boat yard.

- *Oil/water separators*. Oil/water separators are designed to remove petroleum products and grease. In addition, separators may also remove floatable materials and sediments. Operations at the Harbor do not include motor vehicle maintenance areas (boats only) or areas heavily used by mobile equipment. Parking lots are used by tenants of the marina and visitors to the Harbor. Results of the monitoring program associated with the WFD SWPPP have not resulted in a large amount of oil flowing into the drainage system; however, installation of oil/water separators may

need to be considered in the future. All of the storm drains associated with the Harbor parking lots are connected to the City of Santa Barbara storm drain system.

Implementation of Pollution Prevention/Good Housekeeping for Municipal Operations

The WFD will be responsible for implementation of Pollution Prevention/Good Housekeeping for Municipal Operations Minimum Control Measures.

Measurable Goals

Goal 1: Monitor pollution prevention/good housekeeping practices daily, weekly, monthly, yearly as appropriate as described above. Ongoing, Years 1-5.

Goal 2: Assess effectiveness of pollution prevention/good housekeeping practices by thorough review of monitoring, recording, and reporting efforts. Ongoing, Years 1-5.

Goal 3: Update SWPPP to include modified BMPs or additional BMPs as appropriate. Ongoing, Years 1-5.

Goal 4: Monitor storm water quality twice annually during wet season as part of existing storm water management program. Ongoing, Years 1-5

Goal 5: Review Waterfront Department SWPPP annually for compliance with City of Santa Barbara SWMP. Annually, Years 1-5.

6.0 Santa Barbara Municipal Airport Storm Water Management Plan

This section of the Santa Barbara SWMP outlines the Storm Water Management Plan that has been developed specifically for the Santa Barbara Municipal Airport. The MCMs that serve as the Airport SWMP constitute one component of the Santa Barbara SWMP. The City's Airport Department is responsible for implementation, and for assessing and reporting the effectiveness of the Airport SWMP as part of the City's annual report.

6.1 Airport Overview

The Santa Barbara Municipal Airport is owned and operated by the City of Santa Barbara. The Airport Department is responsible for operation of the Airport, under the direction of the City Administrator and City Council. The Airport Commission serves as an oversight body for the Airport and advises City Council on Airport Department related issues. In addition to state and federal requirements, the Airport complies with all applicable Santa Barbara Municipal Code and City policy and process requirements.

The Airport, consisting of 952 acres, lies approximately 7 miles west of downtown Santa Barbara. Approximately 700 acres are fenced, restricted access areas. These areas include runways, taxiways, ramps, roughly 400 acres of Goleta Slough Ecological Reserve and 300 acres of unpaved airfield. Public and commercial/industrial areas outside the airfield total over 200 acres.

The Airport serves both commercial and general aviation uses on three runways. In 2004 the Airport served over 823,000 commercial passengers and over 150,000 aircraft operations. Many aviation-related businesses at the Airport support the varied needs of the Airport's aviation users. Airport aircraft rescue and fire fighting protection is provided by the City, with the facility located at the Airport.

In addition to the aviation support businesses located at the Airport, there are a substantial number of non-aviation businesses occupying City-owned facilities as tenants. These businesses are primarily involved in light commercial/industrial activities, but also include some retail, recreation and food service operations.

The storm sewer system at the Airport drains storm water from the Airport-owned watershed almost exclusively. Inlets receive storm water from City-owned sources that may have been impacted by users and tenants. Creeks that flow through the Airport and into the Goleta Slough receive discharges from off-Airport residential, industrial, transportation and agricultural sources upstream.

The airfield areas of the Airport, which include much of the Goleta Slough, are categorized as restricted access and are surrounded by a perimeter security fence. A majority of the Airport's storm water inlets lie within the restricted area. Sources of non-

storm water discharges to these inlets are essentially limited to airfield tenant and Airport Department activities.

6.2 Airport Storm Water Management

The Airport currently operates under a General Industrial Storm Water Discharge Permit for portions of the Airport inside the airfield fence. The Airport has developed and implemented a storm water pollution prevention plan (SWPPP) for activities covered by the Industrial Permit. Activities occurring in the commercial/industrial areas of the Airport, outside the airfield security fence, are not covered under the General Industrial Permit or addressed by the Airport SWPPP. Tenants within the commercial/industrial area who conduct activities that require a storm water discharge permit must seek necessary coverage independently.

In addition to the requirements of the Industrial Permit, the Airport routinely embarks on efforts to improve storm water quality, including implementation of various construction, source control and treatment BMPs relating to the Airport operation.

Since the Airport operation and property is geographically and organizationally separate from other City operating departments, wholly owned by the City of Santa Barbara, and occupied only by the City's Airport Department and tenants involved in aviation and other commercial and industrial pursuits, compliance with the storm water requirements for small municipal separate storm sewer systems (MS4s), with the goal of improving storm water quality, is best achieved through development of an Airport-specific SWMP that specifically address Airport storm water issues and needs. The Airport SWMP was developed to meet the additional storm water management requirements for the Airport associated with the Phase II, small MS4 program.

The Airport SWMP applies to all portions of the Airport property, including the airfield and commercial/industrial areas. In some cases commitments and activities described in the SWPPP will be reiterated and expanded in this document to satisfy the requirements of the MS4 program.

Pollutants of Concern

The Airport recognizes that the Goleta Slough is listed on the Federal EPA's 303d list of impaired water bodies for metals, pathogens, priority organics, and sediment/siltation (Section 303d of the CWA). Much of the Goleta Slough is located on Airport property and all Airport storm water discharges to the Slough or its tributaries. Other dischargers to the Goleta Slough or its tributaries include the County of Santa Barbara, City of Goleta, University of California at Santa Barbara and others. The Airport acknowledges that upon the Regional Board's adoption of TMDLs for the Goleta Slough, revision of this SWMP may be necessary.

The Airport proposes to address pollutants of concern through implementation of BMPs targeted specifically at those pollutants. The BMPs associated with targeting pollutants

of concern are further described under the Minimum Control Measures section of this plan.

6.3 Best Management Practices

6.3.1 Minimum Control Measure 1: Public Education and Outreach

Because of the configuration of the Airport property and the inaccessible location of many storm water inlets inside restricted areas of the airfield, the Airport will target education and outreach efforts toward Airport tenants, employees and users. In this context "Airport users" will include pilots and others regularly operating on the Airport, not commercial airline passengers or other transient users.

1. Storm drain labeling

Effort will involve identification of inlets located in public areas and areas where airfield users with access to restricted areas may easily discharge to storm drains (these inlets will be referred to as "at risk" inlets). Labeling will alert potential dischargers that inlets drain to the ocean.

2. Airport tenant outreach and education

Distribute educational materials via direct mailings to Airport tenants. Educational materials are designed to educate tenants about the potential impact of non-storm water discharges along with recommended best management practices and pollution prevention approaches. Distributed materials may include flyers, brochures, newsletters, bill inserts, etc. tailored to address general and, in some cases specific, storm water issues that may be present on site. Tenants will also be informed of additional storm water resources available on the Airport website and the availability of the 1- (877) OUR-OCEAN hotline to report storm water issues.

3. Employee and user awareness campaign

Develop and distribute storm water educational materials for Airport staff and/or based aircraft owners via newsletters, direct mailers, or through other direct means. Materials will educate employees and based aircraft owners about the potential impact of non-storm water discharges on receiving waters and will offer recommended best management practices tailored to Airport storm water issues. Distributed material will also inform readers of additional storm water resources available on the Airport website and the 1 - (877) OUR-OCEAN hotline.

4. Internet access to educational materials

Provide internet access to storm water management resources by providing a link to city storm water educational materials on the Airport's website.

Table 1
BMP Implementation: Public Education and Outreach

Year	BMP	Current Status	Implementation Details	Measurable Goal	Responsible Airport Div.
1	Storm drain labeling	None	Year 1 – Identify and label 100% of "at risk" storm water inlets.	100% of "at risk" inlets labeled.	Operations Manager
1 - 5	Tenant outreach and education	Storm water management is addressed in lease signed by tenant prior to occupancy.	Annually provide storm water educational materials to Airport tenants via direct mail.	100% of Airport tenants receiving direct mailers.	Assistant Airport Director
1 - 5	Airport employee and user awareness campaign		Annually produce and distribute storm water educational materials to Airport staff and/or based aircraft owners via newsletter, direct mailer or through other direct means. Materials will educate employees and aircraft owners about the potential impact of non-storm water discharges on receiving waters and will offer recommended best management practices tailored to Airport storm water issues.	100% of Airport staff and/or based aircraft owners receive storm water educational materials.	Airport Director
1	Provide internet access to storm water resources.	None	Provide links to storm water resources on the flysba.com website with an emphasis on pollutants of concern.	Number of webpage visits	Env. Compliance Officer

6.3.2 Minimum Control Measure 2: Public Involvement and Participation

Meetings of the Airport Commission and City Council are subject to Brown Act requirements for public meetings. Any meetings conducted by these bodies must be noticed and public comment accommodated in accordance with that Act.

1. Goleta Slough Management Committee review

The Goleta Slough Management Committee (GSMC) has been meeting since 1991 with the overall goal of resource protection and enhancement of Goleta Slough, while recognizing the urban setting in which the Slough exists. The Committee has prepared a draft Goleta Slough Ecosystem Management Plan (December, 1997) and coordinates the review of activities that may affect the Goleta Slough Ecosystem. Representatives on the GSMC include major landowners in the Slough, such as City of Santa Barbara (Airport), University of California at Santa Barbara, Southern California Gas Company, as well as private landowners, and regulatory agencies including Santa Barbara County Planning and Development and Flood Control, City of Goleta, US Fish and Wildlife Service, Corps of Engineers, California Department of Fish and Game, and California Coastal Commission. Local public interest groups are also represented, including Santa Barbara Audubon, Santa Barbara Urban Creeks Council, Sierra Club, and the Environmental Defense Center.

The Airport Department will make the Storm Water Management Plan and subsequent annual reports available to the GSMC for review and comment.

2. Public review of the SWMP and annual results

The Airport Department will post the SWMP and the SWMP Annual Report on the web for public review and comment.

3. Public notification

The public will be informed of all Airport Commission or City Council discussions or approvals of storm water issues in accordance with standard City public meeting notice requirements.

4. Public comments at meetings and hearings

The public will be given the opportunity to review and provide comment on each storm water item appearing on the Airport Commission or City Council agendas.

Table 2
BMP Implementation: Public Involvement and Participation

Year	BMP	Current Status	Implementation Details	Measurable Goal	Responsible Airport Div.
2 & 4	Goleta Slough Management Committee Review of the SWMP and Results	None	Airport Department will report to GSMC and seek comments biennially in years 2 & 4.	Number of reports presented to GSMC.	Project Planner
2-5	Public Review of the SWMP and Results	None	Airport Department will continually post the current SWMP and annual reports on the Airport's website. Public will be invited to review and comment on the materials provided.	Number of webpage visits or comments received.	Env. Compliance Officer
1	Public Notification	Ongoing	Continue standard notice procedure for public meetings.		Airport Director
1	Public Meetings/Hearings	Ongoing	Continue to provide opportunity for public comment during public meetings.		Airport Director

6.3.3 Minimum Control Measure 3: Illicit discharge detection and elimination

The Airport storm sewer system collects storm water runoff almost exclusively from sources on Airport property. In fact, many of the Airport's inlets to its storm sewer system are within the Airport's restricted area. The "restricted area" is the airfield area inside the Airport's perimeter security fence. Sources of illicit discharges within this area are extremely limited. Because of the site characteristics, and to derive the maximum benefit with regards to storm water quality, many of the MS4 minimum control measures included in the Airport's SWMP, especially those focused on illegal discharge detection and elimination, will be directed specifically toward Airport tenants and users.

Because only Airport tenants discharge to the Airport storm sewer system, the Airport can eliminate illicit connections and discharges to the storm sewer system through a number of methods. The Airport will compel any tenant responsible for an illicit connection or discharge to eliminate it by enforcing terms of the lease agreement. All Airport leases require the tenant to comply with local, state and federal laws and regulations. Since some Airport leases predate the Clean Water Act, not all specifically speak to compliance with storm water requirements. All newer Airport leases require tenants to comply with storm water regulations and prohibit unapproved alteration or modification of premises. In either case, any illicit connection or discharge puts the tenant in default of terms of the lease. If the tenant fails to cure a default, the lease will be terminated and the tenant evicted.

To eliminate illicit connections and discharges, the Airport initially counsels the individual or business responsible for the discharge. Typically, the additional educational efforts resolve the issue and eliminate the non-storm water discharge source. If the discharger is repeatedly responsible for non-storm water discharges or is recalcitrant, the Airport will formally place the tenant in default of its lease. The process typically gives the tenant 10 days to cure the default. Should the tenant be unable or unwilling to cure the default, the lease will be terminated and the tenant evicted from the Airport.

In addition to enforcing the terms of the lease, the Airport Department can pursue penalties and enforcement options on tenants and non-tenants responsible for illicit discharges as outlined in the Santa Barbara Municipal Code: Chapter 1.25 Administrative Code Enforcement Procedures (including enforcement procedures and applicable fines), Chapter 14.20 Prohibition of Water Waste, Chapter 14.56 Water and Sewers, Natural Watercourses and Storm Drain System, and Chapter16.15 Liquid and Industrial Waste Disposal. While both these enforcement mechanisms are in place, the Airport's position as Lessor has proven to be a far stronger enforcement tool for gaining compliance by tenants, regardless of the issue. Airport tenants are bound by lease terms to comply with NPDES requirements. Illicit storm water discharges put the tenant in default of lease terms. Ramifications of a business losing its leased space as a result of failure to cure a default in many cases far exceed the impact of a small monetary fine. The Airport will continue to have formal enforcement capabilities at its disposal, and will

use them when necessary, the Airport will continue to favor using lease terms as the primary enforcement tool if possible.

The Airport has a history, through its long-term coverage under the General Industrial Storm Water Discharge Permit, of routinely inspecting the facility with a goal of discovering and eliminating non-storm water discharges.

1. Visual inspection

To ensure that unauthorized non-storm water discharges do not occur, outfalls will be visually monitored for the presence of non-storm water discharges on a quarterly basis during dry weather and monthly during wet season qualifying storm events by Airport staff.

Quarterly monitoring results will be documented using the Seasonal Dry Weather Visual Inspection Report. Non-storm water discharge information should include the name(s) of inspector(s), designated storm water outfalls observed, the time of day and date the outfalls were observed, and additional testing method(s) and test results (if appropriate). Visual non-storm water discharge observations should document the presence of any discoloration, stains, odors, and floating materials, as well as the source of any discharge. The inspector should observe for the presence of both unauthorized and authorized non-storm water discharges.

Monthly wet season (October 1 through May 30) visual inspections should be performed during a qualifying storm event that meets the following criteria:

- the storm event occurs during scheduled facility operating hours; and

- the storm event is preceded by at least three working days without storm water discharge (Note: the three working days may be separated by non-working days such as weekends and holidays provided that no storm water discharges occur during the three working days and the non-working days).

The results of the visual wet weather monitoring should be documented in the Seasonal Wet Weather Visual Inspection Report. The recorded information should include the date and time, name(s) of inspector(s), designated storm water discharge outfall location, observations made, source(s) of observed pollutants, and response taken to reduce or prevent pollutants in storm water discharges. If possible, the observations should be performed within the first hour of the storm event. If the observations are performed after the first hour of the storm event, the reason(s) should be documented on the Storm Event Record form.

Wet season monitoring should observe and check for the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor and should be performed at each outfall.

Under some conditions, the Airport is exempt from making wet season observations:

- the Airport was unable to conduct wet season observations because of climatic conditions, such as drought, extended freeze, and dangerous weather and/or site conditions; or

- a significant storm event did not occur during the daylight portion of normally scheduled facility operating hours.

If the Airport is unable to perform a wet season observation for the reasons listed above, a description should be documented directly on the Seasonal Wet Weather Visual Inspection Report.

If illicit non-storm water discharges are discovered during monthly or quarter observations staff will investigate the source of the discharge and take steps to eliminate the source.

In addition to the documented monthly and quarterly formal storm water inspections, Airport staff routinely patrol Airport property to identify operational issues that may arise, including compliance with storm water requirements. Storm water issues that may be identified during these informal undocumented inspections are addressed and resolved as soon as possible.

2. Annual Site Inspection

Airport Department staff also conduct an annual comprehensive site compliance evaluation for the area covered by the General Industrial Storm Water Discharge Permit. The inspection consists of a review of the monitoring records compiled over at least the past year, a visual inspection of all potential pollutant sources and a review of the adequacy of BMPs established for the site.

3. Sampling

To detect and eliminate illicit discharges from Airport industrial areas, the Airport has an on-going storm water sampling program. Samples are collected from six areas on the Airport. A description of the sampling program follows.

Storm water samples should be collected by Airport staff during the first hour of discharge from the first qualifying storm event, and at least one other qualifying storm event, and analyzed during each wet season (October 1 through May 31). A qualifying storm event is defined as a storm event that:

- occurs during scheduled facility operating hours; and

- is preceded by at least three working days without storm water discharge (Note: the three working days may be separated by non-working days such as

weekends and holidays provided that no storm water discharges occur during the three working days and the non-working days).

Samples should be collected for two storm events per year. If the first storm event of the wet season is not sampled, the facility is still required to collect samples from two other storm events of the wet season and explain the reason(s) for not sampling the first storm event. The facility is not required to collect a sample during adverse climatic and site conditions (drought, extended freeze, dangerous weather conditions, inaccessible terrain, etc.). Explanations describing the reason(s) for not sampling the first storm event and any conditions that prevent the collection of samples during a given wet season should be documented.

Storm water samples will be collected from the storm water collection systems for outfall 1, 2, 5, 6, 9b, and 10, which receive flow from the primary outdoor industrial areas on the airfield. Sample parameters and protocol are detailed in the Airport Storm Water Monitoring Program Plan which is associated with the SWPPP. When sample results indicate a potential illicit discharge, Airport staff follow up to attempt to identify the source, and may develop and implement additional BMPs if necessary.

4. Information

Educational and outreach materials discussed in Minimum Control Measure 1 will be directed toward Airport employees, Airport tenants and users. Those materials will include information regarding the hazards that are generally associated with illegal discharges and improper disposal of waste, along with suggested best management practices and pollution prevention techniques. These educational and outreach efforts are in addition to the specialized training materials that are presented to Airport maintenance and operations staff. Employee training efforts are detailed in as a storm water pollution prevention strategy in section 6.3.6.

5. County Business Plans

Each Airport tenant who stores a reportable quantity of hazardous material is required to develop a County Business Plan.

Required components of the plan include:

- Identification of hazardous material type, quantity and location,
- Emergency response plans and procedures
- Employee training program
    - Safety training
    - Emergency response training

Airport maintains a list of tenants who have developed a County Business Plan to aid in identifying possible sources of non-storm water discharges and to identify opportunities to provide storm water related educational materials. Development of a plan helps tenants demonstrate knowledge of appropriate spill prevention and response

procedures needed to avoid discharges or hazardous materials to the storm water collection system.

6. Hotline for public to report non-storm water discharges and illicit connections

The public can call the Project Clean Water hotline at 1-877-OUR-OCEAN (1.877.687.6232) to report Airport water quality issues or to get information such as where to dispose of household hazardous waste. Callers can select to be connected with City staff to report water quality issues during working hours. After hours calls regarding Airport water quality issues are routed to the Airport's 24-hour operations center.

7. Storm sewer map update

The Airport's storm sewer map (block book) is complete. Airport will periodically review and update maps to insure that the storm water system is accurately depicted. Initial review should focus on areas north of Hollister Ave. and storm drain systems upgraded along the south end of Taxiway B.

8. Enforce SBMC 14.56.070, titled "Connecting with City Drain System - Permit Required."

The Airport will use existing sections of the Municipal Code to eliminate illicit connections to the storm sewer system in the event that it is unable to resolve illicit connection issues through actions as the land owner, such as by enforcement of lease provisions or by other means. Since the City owns the property served by the storm sewer system, any illicit connections detected are likely to have been created by tenants. In such cases, the City Airport has many avenues to eliminate the illicit connection in addition to enforcement of the municipal code, including enforcement of lease terms by placing tenant in default and unilateral physical elimination of illicit connections by the City with potential charge to tenant for cost of removal.

Table 3
BMP Implementation: Illicit Discharge Detection and Elimination

Year	BMP	Current Status	Implementation Details	Measurable Goal	Responsible Airport Div.
1-5	Visual inspection	Ongoing	Visually inspect storm water outfalls quarterly during dry weather and monthly during qualifying wet season rain events.	Conduct quarterly dry weather inspections and monthly inspections during the wet season.	Operations
1-5	Annual Comprehensive Site Compliance Evaluation (ACSCE) of Industrial Permit coverage area		Conduct an ACSCE of Industrial Permit coverage area to assess conditions and effectiveness of Industrial Storm Water Program	Conduct annual ACSCE inspection	Env Compliance Officer
1-5	Sampling	Ongoing	Sample storm water twice from collection systems 1,2,5,6,9b and 10 per criteria established in the SWPPP.	Samples collected during 2 qualifying storm events.	Operations
1-5	Provide storm water educational materials and information	Ongoing	Distribute storm water related information to Airport employees, tenants and users.	See MCM 1, BMPs 2 & 3.	Airport Director/ Assistant Director
1-5	County Business Plans	Ongoing	Maintain list of tenants with County Business Plans.	Update list annually	Env. Compliance Officer
1-5	Receive reports of storm water quality issues via the Project Clean Water Hotline – 1 - (877) OUR-OCEAN.	Referral tree updated 10/08.	Investigate all reports received of non-storm water discharges and illicit connections reported via the storm water hotline and other channels.	Investigate 100% of reports of non-storm water discharges and illicit connections.	Env. Compliance Officer
1-5	Maintain storm drain system map.	Map is complete (Updated 2004)	Airport staff use storm drain system map (block book) and submit error reports when inaccuracies are noted. Map is update periodically to reflect corrections noted in error reports.	Periodically update map as needed.	Airport Engineer
1-5	Enforce SBMC 14.56.070, titled “Connecting with City Drain System - Permit Required” which prohibits illicit connection to storm sewers.	On-going	When illicit storm sewer system connections are detected, use Municipal Code to encourage removal in cases where alternative enforcement mechanisms, such as enforcement of existing lease terms, are ineffective.	Eliminate 100% of illicit storm sewer connections that are detected.	Env. Compliance Officer

6.3.4 Minimum Control Measure 4: Control of construction site runoff

All Airport construction projects requiring a building permit issued by the City of Santa Barbara are subject to City permit conditions and in some cases California Coastal Commission and RWQCB permit conditions regarding control of construction site runoff. The City reviews individual project proposals and imposes project-specific construction storm water management conditions, where applicable, for all projects requiring a building permit. These conditions may apply to proposals of all sizes, including those impacting less than one acre, in situations where erosion is anticipated.

As part of the City's proposed SWMP, the process for project review and development of project-specific construction storm water management conditions will be reviewed and revised if necessary. Airport Department projects will continue to be governed by the City process to require, review, permit, inspect and enforce erosion control measures on construction projects.

Airport Department will also comply with additional construction storm water management requirements that are imposed by other regulatory agencies with jurisdiction over individual Airport projects, such as the RWQCB and California Coastal Commission.

Best management practices for construction storm water management will be compliance with project-specific City (and other agency) requirements for reducing the impact of non-storm water discharges from construction sites. In instances where project specific conditions of approval are stipulated on Airport projects, a Project Environmental Coordinator is assigned. The Project Environmental Coordinator is responsible for verifying that project conditions of approval are met. Typically, general progress updates, monitoring and reporting compliance with conditions of approval, are completed on a weekly basis

Table 4
BMP Implementation: Control of Construction Site Runoff

Year	BMP	Current Status	Implementation Details	Measurable Goal	Airport RP
1 -5	Comply with City (and other agencies with jurisdiction) permit conditions regarding control of construction site runoff.	All projects currently subject to permit conditions.	All Airport Department construction projects requiring a building permit will continue to be governed by City conditions of approval, including control of construction site runoff.	Minimize percentage of construction projects with violations of permit conditions related to storm water management with a goal of 100% compliance.	Airport Engineer
1 -5	Airport tenant projects comply with permit conditions regarding control of construction site runoff.	All tenant projects currently subject to permit conditions.	All Airport tenant construction projects requiring a building permit will continue to be governed by City conditions of approval, including control of construction site runoff.	Minimize percentage of construction projects with violations of permit conditions related to storm water management with a goal of 100% compliance.	Env. Compliance Officer

6.3.5 Minimum Control Measure 5: Post-construction storm water management

Like sediment and erosion control requirements for construction projects, Airport Department projects and other projects located at the Airport are subject to post-construction storm water standards established by the City of Santa Barbara and, in some cases, additional permit conditions established by the California Coastal Commission and RWQCB. The City reviews individual project proposals and imposes project-specific post-construction storm water management conditions where applicable.

As part of the City's proposed SWMP, the process for project review and development of project specific post-construction storm water management conditions will be reviewed and revised if necessary. Airport Department projects will continue to be governed by the City process to require project specific BMPs related to post-construction storm water management.

The Airport's best management practices for post construction storm water management will be continued implementation of project-specific City (and other agency) standards for reducing the long-term impact of construction on storm water quality. Airport Department staff is also responsible for on-going maintenance of structural BMP devices installed as conditions of approval for Airport projects.

Table 5
BMP Implementation: Post-Construction Storm Water Management

Year	BMP	Current Status	Implementation Details	Measurable Goal	Airport RP
1 -5	Comply with City (and other agencies with jurisdiction) permit conditions regarding post-construction storm water management.	All projects currently subject to permit conditions.	All Airport Department construction projects requiring a building permit will continue to be governed by City conditions of approval, including post-construction storm water management.	Maintain 100% of structural storm water BMPs in accordance with conditions of approval established for the project	Operations Manager

6.3.6 Minimum Control Measure 6: Pollution prevention and good housekeeping

Pollution Prevention

1. Off-Site Preventative Equipment and Vehicle Maintenance
Routine preventative maintenance of Airport vehicles and equipment is typically performed off-site. Equipment and/or vehicles that are found to leak are promptly repaired or replaced. Most Airport industrial tenants are not permitted to perform vehicle or equipment maintenance on-site.

2. Covered Vehicle and Equipment Storage Areas
Most Airport Department vehicles, equipment and raw materials are stored under cover to prevent exposure to rainfall.

3. Employee Training
Airport maintenance employees receive annual Spill Prevention and Response and Best Management Practice training, based on California Stormwater Quality Association fact sheets, or other sources. Training materials are tailored to address Airport specific storm water issues. Each of the training topics will be presented separately and will be approximately one hour in length. Training topics include:

- Best management practices, including pollution prevention strategies and good housekeeping.
- Spill prevention and response
- Hazard communication

4. Aircraft Fuel Dispenser Training
All aircraft fueling personnel receive FAA approved training. Training includes fueling safety and spill response procedures.

5. Airport Wash Racks
Airport is equipped with three, bermed wash racks connected to the sanitary sewer for washing vehicles and aircraft. Commercial/industrial tenants are not permitted to wash vehicles on-site. Aircraft owners are encouraged to use the aircraft wash rack. If aircraft are washed on the ramp, the wash water must be contained, removed and disposed of properly.

6. Lavatory Disposal Station
Airport provides a bermed lavatory cart disposal station connected to the sanitary sewer for proper disposal of aircraft lavatory waste.

7. Used Oil Collection Station
In cooperation with Community Environmental Council, Airport provides a used oil collection facility for pilots.

8. Spill Response Supplies
Airport, airlines and FBOs maintain an inventory of spill response supplies.

9. IPM Educational Materials
Link to IPM educational materials - The City of Santa Barbara has adopted an Integrated Pest Management Strategy intended to reduce the amount and toxicity of pesticides used by the City. Airport will post a link on its web page, www.flysba.com where Airport users, tenants and the public can gain more information about ways to reduce the impact of pesticides used in their home or business.

Good Housekeeping

1. Covered Dumpsters
Covered solid waste dumpsters are located throughout the Airport for collection of trash/litter.

2. Encourage Dry Clean-up Methods
Dry clean-up practices are always encouraged when possible. When Airport Department staff undertake activities that necessitate washing surfaces that could result in discharge to the storm water collection system, staff protect inlets from receiving wash water and remove wash water with a vacuum, or prevent discharge to the storm water system through other means.

3. Outdoor Material Storage
Applies to outdoor storage of materials by the Airport Department not associated with a permitted construction project, including raw materials, intermediate materials, waste materials and products, where contact with storm water may cause contamination or sediment loading.

General

- Minimize inventory of materials stored outdoors.
- Protect materials stored outside from rainfall and wind dispersal to prevent storm water contamination and sediment loading.
- Prevent storm water run-on to material storage areas (dike, berm or elevate).
- Protect storm water inlets where it is impossible to prevent material from being dispersed.
- Locate storage areas away from concentrated flows of storm water, drainage courses and inlets. Store indoors if feasible.
- Keep storage areas clean and dry (sweep or vacuum), do not hose down the area to a storm drain or conveyance ditch.
- Conduct regular inspections of outdoor storage areas for conditions where storm water discharge contamination or sediment loading could occur. Remedy deficiencies found.

Bulk soil, sand, compost, mulch or other dry bulk raw material, and debris storage

Stockpiles (small enough to cover)

- Cover with structure or tarp.
- Prevent storm water run-on. Elevate or contain (dike, berm, elevate)

Stockpiles (too large to cover)

- Implement erosion control practices around the perimeter of the site and at any catch basins to prevent erosion of the stockpiled material.

Liquids in portable containers

- Containers must have tight fitting lids
- Raise the containers off the ground or provide adequate secondary containment – always store liquids on impervious surface.
- Maintain containers in good condition.

4. Inspection and Maintenance of Structural Storm Water BMP Devices

Many of the structural BMP devices used by the Airport require routine inspection and maintenance to function at peak efficiency. The Airport will establish a quarterly inspection schedule for structural BMP devices requiring periodic maintenance. Based on inspection results, appropriate maintenance will be performed if needed.

BMPs to specifically address "pollutants of concern" in the Goleta Slough

1. Street sweeping (POC - metals, pathogens, sediment/siltation, priority organics)
The Airport will perform sweeping of streets every other month (six (6) times annually).

Commercial parking lots, taxiways and runways will be swept at least quarterly. Note that runways and taxiways are inspected twice daily for the presence of debris, such as loose particulates, that can damage aircraft. Additional sweeping in these areas is conducted as needed.

Sweeping removes particulates that may assist in the transport of metals, pathogens and priority organics in storm water. At least one sweeping event will be scheduled prior to the rainy season. This effort is intended to eliminate particulates that accumulate during the dry summer months which would be discharged to storm drains with the first rains of the season.

2. Enforce no camping ordinance (POC – pathogens)
Santa Barbara Municipal Code Section 18.08.150(e) prohibits camping or sleeping on the Airport. The Airport occasionally discovers and disbands illegal encampments on Airport property. Continued enforcement of this ordinance will help reduce pathogens discharged to the Goleta Slough in storm water.

3. Air carrier ramp cleaning (POC – pathogens, particulates)
The Airport has recently implemented a program to clean the Airport's air carrier ramp on a quarterly basis. The program was initiated to remove the accumulation of de minimus quantities of pollutants that occurs as a result of daily air carrier operations and public access to the air carrier ramp. The cleaning program consists of power washing air carrier ramp areas, collecting wash waters using the vacuum sweeper and disposing of wash waters to the waste water system. All other non-storm water discharges on the air carrier ramp are addressed in accordance with the Airport's spill reporting and response procedures.

4. Sediment basin maintenance (POC - sediment/siltation)
To maintain the floodwater capacity of creeks that enter Airport property, Santa Barbara County Flood Control maintains sediment catch basins on the Airport. Sediments deposited in the basins from off-site sources are routinely removed by County Flood Control. This practice, while primarily a flood control effort, also helps reduce the quantity of sediments and silt flowing to the Goleta Slough. The Airport improved the sediment basins as part of the Airfield Safety Project and will continue to cooperate with County flood Control sediment removal efforts.

Table 6
BMP Implementation: Pollution Prevention and Good Housekeeping

Year	BMP	Current Status	Implementation Details	Measurable Goal	Responsible Airport Div.
1-5	Off-Site Preventative Airport Vehicle and Equipment Maintenance	Ongoing	Perform regular maintenance of Airport vehicles and equipment off-site.	Continue agreement with City Motor Pool to perform regular maintenance off-site.	Operations Manager
1-5	Covered Storage Areas	Ongoing	Provide covered storage areas for most Airport vehicles, equipment and materials.	Provide at least 5625 square feet of covered parking for Airport equipment and vehicles.	Maintenance Supervisor
1-5	Employee Training	Ongoing	Provide annual training for Airport Maintenance staff on each of the following topics: • Best management practices, • Spill prevention and response • Hazard communication	100% percent of Maintenance employees attending storm water training.	Maintenance Supervisor
1-5	Aircraft Fuel Dispenser Training	Ongoing	Airport tenants that fuel aircraft are required to comply with FAR Part 139 fueling requirements.	Compliance with FAR Part 139 fuel dispenser training requirement.	Operations Manager
1-5	Airport Wash Racks	Ongoing	Provide wash racks for rental cars, aircraft and equipment.	Inspect wash racks quarterly.	Maintenance Supervisor
1-5	Lavatory Disposal Station	Ongoing	Provide an aircraft lavatory disposal station.	Inspect lav cart disposal station quarterly.	Maintenance Supervisor
1-5	Used Oil Collection Station	Ongoing	Provide a used oil collection station for pilots.	Inspect used oil collection facility monthly.	Maintenance Supervisor
1-5	Spill Response Supplies	Ongoing	Maintain an adequate inventory of spill response supplies.	Inspect Airport spill supplies monthly.	Maintenance Supervisor
1-5	Integrated Pest Management	IPM Strategy is being implemented by City	Post a City Integrated Pest Management Strategy link on the Airport website to educate the public and reduce the use and potential discharge of pesticides.	Number of visits to IPM webpage.	Env. Compliance Officer
1-5	Covered dumpsters	To develop	Encourage Airport employees to remain vigilant in covering dumpsters.	Incorporate topic in Airport maintenance employee BMP training	Maintenance Supervisor
1-5	Use dry clean-up practices	To develop	Airport staff use dry clean-up practices when possible and deploy appropriate BMPs when wet wash techniques are required.	Incorporate topic in Airport maintenance employee BMP training.	Maintenance Supervisor

1-5	Outdoor material storage		Applies to outdoor storage of materials by the Airport Department not associated with permitted construction projects	Airport facilities 100 % compliant with outdoor material storage BMPs	Maintenance Supervisor
1-5	Inspection of structural BMP devices.		Quarterly inspect and clean or replace, if necessary, filters and traps in structural BMP devices installed on the Airport.	At least 70% of Airport inlets equipped with a structural BMP inspected quarterly.	Maintenance Supervisor
1-5	Sweeping.		Sweep Airport streets at least six times annually (once prior to the rainy season - November 1) to reduce sources of metals, pathogens, sedimentation/siltation and priority organics in Airport storm water. Commercial parking lots, runways and taxiways will be swept at least quarterly.	Sweep Airport streets 6 times annually. Sweep Airport runways, taxiways and commercial parking lots quarterly.	Maintenance Supervisor
1-5	Enforce “no camping” ordinance.	Ongoing	Enforce “no camping” ordinance to reduce potential for pathogens to be discharged from transient encampments to the Goleta Slough.	Number of field investigation cards completed related to illegal camping on the Airport.	Patrol Supervisor
1-5	Clean air carrier aircraft ramp quarterly	Ongoing	Conduct quarterly cleaning of the air carrier ramp.	Clean air carrier ramp four times annually.	Maintenance Supervisor
1-5	Sediment basin maintenance.	Ongoing	Work with County Flood Control to continue maintenance of sediment catch basins in Goleta Slough tributaries.	Facilitate access for County Flood Control	Maintenance Supervisor

7.0 Annual Reporting

The City will provide annual reports for all elements of the SWMP, including those applicable to the Airport and the Waterfront. The purpose of monitoring and reporting is to document successful implementation of the SWMP. The City intends these annual reports to cover the fiscal year (July 1 – June 30) immediately prior to the reporting period or the permit year, whichever is more appropriate. City will submit annual reports to the RWQCB, Central Coast Region, by September 15th of each year. The City will monitor the implementation of its program and the overall effectiveness by measuring and reporting the data discussed in the individual Minimum Control Measures sections as detailed above. Generally speaking, five types of data will be collected:

- Progress establishing BMPs that are developed during the SWMP implementation period, or establishing existing BMPs in newly identified permit areas.
- Training the staff (and as appropriate contractors) who work for the City.
- Objective measures of ongoing BMPs such as public participation or education outreach.
- Response time and results of pollution cleanup.
- All goals identified in this SWMP.

The City will regularly evaluate both current conditions and BMP effectiveness and, as appropriate, update BMPs and measurable goals to achieve the objective of meeting water quality standards and reducing storm water pollution to the maximum extent practicable. If, after implementing the minimum control measures, there is still water quality impairment associated with discharges from the City's MS4, it may be necessary to expand or better tailor existing BMPs. Such changes will be undertaken in consultation with the public, the Creeks Advisory Committee, Airport Commission, Goleta Slough Management Committee, City Council and the RWQCB. The Annual Report will include the following:

- The status of compliance with permit conditions.
- An assessment of the appropriateness and effectiveness of the identified BMPs.
- Status of the identified measurable goals.
- Results of information collected and analyzed, including monitoring data, if any, during the reporting period.
- A summary of the storm water activities the City plans to undertake during the next reporting cycle.
- Any proposed changes to the SWMP along with justification of why the changes are necessary.
- A change in the person or persons implementing and coordinating the SWMP.

The report will also provide a narrative discussion of progress, challenges, and any changes to the SWMP to be implemented in meeting the MEP standard. Pursuant to the General Permit, data will be retained for a minimum of five years. Annual reports as well as BMP data will be posted to the City's web site and made available to the general public.

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